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	DB=PG	PB, USPT, USOC, EPAB, JPAB, DWPI; PLUR=YES; OP=ADJ	
<u></u>	L24	Csf-1 antibody and angiogenesis	0
П	L23	M-CSF antibody and angiogenisis	0
П	L22	L21 and (tumour or cancer or malignancy or carcinoma or tumor or neoplasia)	31
Γ	L21	L20 and angiogenesis	31
r.	L20	(gene silencing) and (CSF-1 or M-CSF)	72
Γ.	L19	(CSF-1 antibody) and angiogenesis	. 0
Γ	L18	(M-CSF antibody) and angiogenisis	0
Γ.	L17	L11 and tumor (anti-CSF-1 antibody)	0
Γ	L16	L15 and (M-CSF-1)	0
_	L15	L11 and tumor	236
Γ	L14	L12 and (M-CSF antibody)	0
Γ	L13	L12 and (CSF-1 antibody)	. 0
Γ	L12	L11 and VEGF	235
Γ_	L11	L10 and macrophage	236
Γ	L10	L9 and antibody	239
	L9	L8 and M-CSF	239
	L8	CSF-1 and (anti-angiogenic)	401
	DB=EP	AB,JPAB,DWPI; PLUR=YES; OP=ADJ	
Γ.	L7	CSF-1 and (anti-angiogenic)	0
Γ	L6	L4 and M-CSF	0
Γ	L5	L4 and CSF-1	0
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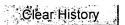
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Search	Most Recent Queries	Time	Result
<u>#21</u>	Search (tumor or cancer) anti-angiogenic and (antibody) Limits: Review	09:05:26	<u>40</u>
<u>#20</u>	Search (tumor or cancer) anti-angiogen\$ and (antibody) Limits: Review	09:00:37	<u>0</u>
<u>#19</u>	Search (tumor or cancer) angiogenesis and (antibody) Limits: Review	09:00:01	<u>337</u>
<u>#18</u>	Search (tumor or cancer) angiogenesis and (antibody) Limits: Publication Date to 1997/12/05	08:59:37	<u>291</u>
#17	Search (tumor or cancer) angiogenesis and macrophage and (antibody) Limits: Publication Date to 1997/12/05	08:58:34	<u>12</u>
<u>#16</u>	Search (tumor or cancer) angiogenesis and macrophage and (antibody)	08:57:48	<u>66</u>
#15	Search tumor angiogenesis and macrophage and (antibody)	08:56:50	<u>65</u>
<u>#14</u>	Search angiogenesis and macrophage and (antibody)	08:56:32	115
<u>#9</u>	Search angiogenesis and macrophage and (antibody) Limits: Review	08:55:07	7
#13	Search angiogenesis and macrophage and (antibody) Limits: Clinical Trial	08:54:19	1
<u>#7</u>	Search angiogenesis and macrophage and (antibody) Limits: Review, Cancer	08:48:27	5
<u>#1</u>	Search angiogenesis and macrophages Limits: Clinical Trial, Review, Cancer	08:47:28	<u>149</u>
<u>#3</u>	Search angiogenesis and macrophages and (antibody) Limits: Clinical Trial, Review, Cancer	08:46:59	<u>6</u>
<u>#11</u>	Search vasculature and macrophage and (antibody) Limits: Review	08:45:52	<u>17</u>
<u>#10</u>	Search vasculation and macrophage and (antibody) Limits: Review	08:45:21	Ó
<u>#5</u>	Search angiogenesis and macrophages and (antibody) Limits: Review, Cancer	08:43:08	4

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<u>#10</u>	Search gene silencing and angiogenesis and M-CSF	11:01:24	0
#9	Search gene silencing and angiogenesis and CSF-1	11:01:15	0
<u>#8</u>	Search gene silencing and angiogenesis	11:00:47	<u>104</u>
<u>#7</u>	Search gene silencing and M-CSF	11:00:11	9
<u>#5</u>	Search gene silencing and CSF-1	10:59:13	<u>6</u>
#4	Search seaver antibody	10:10:54	<u>15</u>
<u>#2</u>	Search seaver antibody Limits: Publication Date to 1994	10:09:45	9
<u>#1</u>	Search seaver Limits: Publication Date to 1994	10:09:08	<u>158</u>

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                 thesaurus added in PCTFULL
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              AND CURRENT DISCOVER FILE IS DATED 19 DECEMBER 2005.
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38 S (ANGIOGENESIS AND (CSF 1) OR (M CSF) AND (ANTI (N) ANGIOGENIC

L2 31 DUPLICATE REMOVE L1 (7 DUPLICATES REMOVED)

L3 5100 S (GENE SPLICING) AND (CSF 1) OR (M CSF)

L4 5099 S (GENE SILENCING) AND (CSF 1) OR (M CSF)

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DUPLICATE PREFERENCE IS 'CAPLUS, BIOENG, BIOTECHNO, BIOTECHDS, ESBIOBASE' KEEP DUPLICATES FROM MORE THAN ONE FILE? Y/(N):n

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PROCESSING COMPLETED FOR L4

L5 3113 DUPLICATE REMOVE L4 (1986 DUPLICATES REMOVED)

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FILE 'CAPLUS, BIOENG, BIOTECHNO, BIOTECHDS, ESBIOBASE' ENTERED AT
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             38 S (ANGIOGENESIS AND (CSF 1) OR (M CSF) AND (ANTI (N) ANGIOGENIC
L1
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           5100 S (GENE SPLICING) AND (CSF 1) OR (M CSF)
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           5099 S (GENE SILENCING) AND (CSF 1) OR (M CSF)
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            4 L2 AND L5
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=> duplicate remove L6
PROCESSING COMPLETED FOR L6
              4 DUPLICATE REMOVE L6 (0 DUPLICATES REMOVED)
L7
=> d 17 bib abs 1-4
    ANSWER 1 OF 4 CAPLUS COPYRIGHT 2006 ACS on STN
L7
     2005:334662 CAPLUS
ΑN
DN
    143:110109
    M-CSF and GM-CSF induce human monocytes to express
TI
    either pro- or anti-angiogenic factors
ΑU
     Eubank, Timothy D.
    Ohio State Univ., Columbus, OH, USA
CS
     (2003) 188 pp. Avail.: UMI, Order No. DA3124980
SO
     From: Diss. Abstr. Int., B 2004, 65(3), 1231
DT
    Dissertation
LA
    English
    Unavailable
AB
    ANSWER 2 OF 4 CAPLUS COPYRIGHT 2006 ACS on STN
L7
AN
    2000:725746 CAPLUS
DN
     133:276345
     Pharmaceutical compositions comprising monocytes and uses for the
TI
    modulation of neovascularization and/or growth of collateral arteries
    Buschmann, Ivo; Schaper, Wolfgang
ΙN
    Max-Planck-Gesellschaft zur Forderung der Wissenschaften e.V., Germany
PΑ
SO
     PCT Int. Appl., 36 pp.
     CODEN: PIXXD2
DT
     Patent
     English
LA
FAN.CNT 1
                                          APPLICATION NO.
     PATENT NO.
                         KIND DATE
                                                                   DATE
                         Al 20001012 WO 2000-EP3087
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                                                                   20000406
PT
    WO 2000060054
        W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR,
             CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU,
             ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU,
             LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE,
        SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
             PT, SE
                                           EP 2000-926832
                                20020102
                                                                    20000406
     EP 1165754
                          A1
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO
PRAI EP 1999-106800
                                19990406
                         Α
     WO 2000-EP3087
                          W
                                20000406
     The present invention relates to a (pharmaceutical) composition comprising a
AB
     circulating blood cell, preferably a monocyte loaded with a
     therapeutically active mol. and, optionally, a pharmaceutically acceptable
     carrier and/or diluent. Furthermore, the present invention relates to the
     use of a circulating blood cell, preferably a monocyte loaded with a
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therapeutically active mol. for the preparation of a (pharmaceutical) composition

for enhancing collateral growth of collateral arteries and/or arteries from pre-existing arteriolar connections and/or preventing and/or treating an occlusive disease. The present invention also relates to a method for enhancing collateral growth of collateral arteries and/or arteries from pre-existing arteriolar connections, and/or preventing and/or treating an occlusive disease, said method comprising administering to a subject in need thereof an effective amount of circulating blood cells, preferably monocytes loaded with a therapeutically active mol. Also described are (pharmaceutical) kits, diagnostic compns., their preparation and use as well as diagnostic methods.

RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

- L7 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2006 ACS on STN
- AN 2000:573686 CAPLUS
- DN 133:176175
- TI Methods for treatment of tumors and metastases using a combination of anti-angiogenic and immunotherapies
- IN Lode, Holger N.; Reisfeld, Ralph A.; Cheresh, David A.; Gillies, Stephen D.
- PA The Scripps Research Institute, USA; Lexigen Pharmaceuticals Corporation
- SO PCT Int. Appl., 78 pp. CODEN: PIXXD2
- DT Patent
- LA English
- FAN.CNT 1

L MIA .	PAN.CNI I																		
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ΡI	WO	2000	0472	28		Al		2000	0817	1	WO 2	000-1	US34	83	20000211				
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			IN,	IS,	JP,	KE,	KG,	ΚP,	KR,	KZ,	LC,	LK,	LR,	LS,	LT,	LU,	LV,	MA,	
			MD,	MG,	MK,	MN,	MW,	MX,	NO,	NZ,	PL,	PT,	RO,	RU,	SD,	SE,	SG,	SI,	
			SK,	SL,	ТJ,	TM,	TR,	TT,	TZ,	UΑ,	ŪĠ,	US,	UZ,	VN,	YU,	ZA,	ZW		
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	AU	7767	90			В2		2004	0923										
	EP	1156	823			A1		2001	1128		EP 2	000-	9101	38		2	0000	211	
		R:	AT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	IT,	LI,	LU,	NL,	SE,	MC,	PT,	
						LV,			•	-	-	•	-	-	•		•		
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PRAI		1999						1999											
		2000						2000											

AB The invention teaches methods for treating tumors and tumor metastases in a mammal comprising administering, to a mammal in need of treatment, a therapeutic amount of an antagonist sufficient to inhibit angiogenesis in combination with a therapeutic amount of anti-tumor immunotherapeutic agent, such as an anti-tumor antigen antibody/cytokine fusion protein having a cytokine and a recombinant Ig polypeptide chain sufficient to elicit a cytokine-specific biol. response.

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2006 ACS on STN AN 2000:710096 CAPLUS

- DN 134:278645
- TI Human breast cancer cells induce **angiogenesis**, recruitment, and activation of osteoclasts in osteolytic metastasis
- AU Winding, Bent; Misander, Henriette; Sveigaard, Christina; Therkildsen, Bente; Jakobsen, Maria; Overgaard, Trine; Oursler, Merry Jo; Foged, Niels Taekker
- CS OsteoPro A/S, Cancer and Bone Group, Center for Clinical and Basic Research, Ballerup, 2750, Den.
- SO Journal of Cancer Research and Clinical Oncology (2000), 126(11), 631-640 CODEN: JCROD7; ISSN: 0171-5216
- PB Springer-Verlag
- DT Journal
- LA English
- Purpose: The purpose of this study was to elucidate the potential of human AB breast cancer cells (BCC) to induce matrix degradation and neo-vascularization, essential for continued tumor growth, in osteolytic lesions. Methods: BCC were inoculated into the left cardiac ventricle of female athymic mice and osteolytic lesions were radiol. visualized within 4 wk from inoculation. Results: Histomorphometric anal. of bone sections revealed a significant increase in the number and maturity of osteoclasts (OC1) lining the bone surfaces next to tumor tissue when compared to corresponding bone surfaces in healthy mice. In addition, a large number of newly formed blood vessels could be visualized by immunohistochem. at the periphery of and within tumor tissue. When bone marrow (BM) cells were cultured in the presence of BCC the OCl formation was increased threefold. These OCl were also found to be more mature and to have greater resorptive activity. Moreover, BCC were found to stimulate proliferation, migration, and differentiation of BM-derived endothelial cells. Conclusions: Matrix destruction and neo-vascularization are accomplished by BCC arrested in the BM cavity by increasing recruitment and activity of OCl and by induction of angiogenesis within or in proximity to the tumor tissue.
- RE.CNT 53 THERE ARE 53 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

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L4

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- L1 38 S (ANGIOGENESIS AND (CSF 1) OR (M CSF) AND (ANTI (N) ANGIOGENIC
- L2 31 DUPLICATE REMOVE L1 (7 DUPLICATES REMOVED)
- L3 5100 S (GENE SPLICING) AND (CSF 1) OR (M CSF)
 - 5099 S (GENE SILENCING) AND (CSF 1) OR (M CSF)
- L5 3113 DUPLICATE REMOVE L4 (1986 DUPLICATES REMOVED)
- L6 4 S L2 AND L5
- L7 4 DUPLICATE REMOVE L6 (0 DUPLICATES REMOVED)

=> d 12 bib abs 1-31

- L2 ANSWER 1 OF 31 CAPLUS COPYRIGHT 2006 ACS on STN
- AN 2006:350676 CAPLUS
- TI Colony-Stimulating Factor-1 Antibody Reverses Chemoresistance in Human MCF-7 Breast Cancer Xenografts
- AU Paulus, Patrick; Stanley, E. Richard; Schaefer, Romana; Abraham, Dietmar; Aharinejad, Seyedhossein
- CS Laboratory for Cardiovascular Research, Department of Anatomy and Cell Biology, Vienna Medical University, Vienna, Austria and Department of Developmental and Molecular Biology, Albert Einstein College of Medicine, Bronx, NY, USA
- SO Cancer Research (2006), 66(8), 4349-4356 CODEN: CNREA8; ISSN: 0008-5472

- PB American Association for Cancer Research
- DT Journal
- LA English
- Overexpression of colony-stimulating factor-1 (CSF-1) AR and its receptor in breast cancer is correlated with poor prognosis. Based on the hypothesis that blockade of CSF-1 would be beneficial in breast cancer treatment, we developed a murinized, polyethylene glycol-linked antigen-binding fragment (Fab) against mouse (host) CSF-1 (anti-CSF-1 Fab). Mice bearing human, chemoresistant MCF-7 breast cancer xenografts were treated with combination chemotherapy (CMF: cyclophosphamide, methotrexate, 5-fluorouracil; cycled twice i.p.), anti-CSF-1 Fab (i.p., cycled every 3 days for 14 days), combined CMF and anti-CSF-1 Fab, or with Ringer's solution as a control. Anti-CSF-1 Fab alone suppressed tissue CSF-1 and retarded tumor growth by 40%. Importantly, in combination with CMF, anti-CSF-1 Fab reversed chemoresistance of MCF-7 xenografts, suppressing tumor development by 56%, down-regulating expression of the chemoresistance genes breast cancer-related protein, multidrug resistance gene 1, and glucosylceramide synthase, and prolonging survival significantly. Combined treatment also reduced angiogenesis and macrophage recruitment and down-regulated tumor matrix metalloproteinase-2 (MMP-2) and MMP-12 expression. These studies support the paradigm of CSF-1 blockade in the treatment of solid tumors and show that anti-CSF-1 antibodies are potential therapeutic agents for the treatment of mammary cancer. (Cancer Res 2006; 66(8): 4349-56).
- L2 ANSWER 2 OF 31 CAPLUS COPYRIGHT 2006 ACS on STN
- AN 2006:55787 CAPLUS
- DN 144:230520
- TI Roles of myofibroblasts in prostaglandin E2-stimulated intestinal epithelial proliferation and angiogenesis
- AU Shao, Jinyi; Sheng, George G.; Mifflin, Randy C.; Powell, Don W.; Sheng, Hongmiao
- CS Department of Surgery and Cancer Center, Indiana University School of Medicine, Indianapolis, IN, USA
- SO Cancer Research (2006), 66(2), 846-855 CODEN: CNREA8; ISSN: 0008-5472
- PB American Association for Cancer Research
- DT Journal
- LA English
- Prostaglandins (PG) are produced throughout the gastrointestinal tract and AB are critical mediators for a complex array of physiol. and pathophysiol. processes in the intestine. Intestinal myofibroblasts, which express cyclooxygenase (COX) and generate PGE2, play important roles in intestinal epithelial proliferation, differentiation, inflammation, and neoplasia through secreting growth factors and cytokines. Here, we show that PGE2 activated human intestinal subepithelial myofibroblasts (18Co) through Gs protein-coupled E-prostanoid receptors and the cAMP/protein kinase A pathway. 18Co cells and primary colonic myofibroblast isolates expressed a number of growth factors; several of them were dramatically regulated by PGE2. An epidermal growth factor-like growth factor, amphiregulin (AR), which was not expressed by untreated cells, was strongly induced by PGE2. Expression of vascular endothelial growth factor A (VEGFA) was rapidly increased by PGE2 exposure. Hepatocyte growth factor (HGF) was elevated in PGE2-treated myofibroblasts at both mRNA and protein levels. Thus, PGE2-activated myofibroblasts promoted the proliferation and migration of intestinal epithelial cells, which were attenuated by neutralizing antibodies to AR and HGF, resp. Moreover, in the presence of PGE2, myofibroblasts strongly stimulated the migration and tubular formation of vascular endothelial cells. Neutralizing antibody to VEGFA inhibited the observed stimulation of migration. These results suggest that myofibroblast-generated growth factors are important mediators for

PGE2-induced intestinal epithelial proliferation and angiogenesis , which play critical roles in intestinal homeostasis, inflammation, and neoplasia.

RE.CNT 62 THERE ARE 62 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

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ANSWER 3 OF 31 CAPLUS COPYRIGHT 2006 ACS on STN
L2
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2005:451351 CAPLUS ΑN

143:7710 DN

TI Preparation of benzimidazole quinolinones for inhibiting FGFR3 and treating multiple myeloma

Cai, Shaopei; Chou, Joyce; Harwood, Eric; Heise, Carla C.; Machajewski, Timothy D.; Ryckman, David; Shang, Xiao; Wiesmann, Marion; Zhu, Shuguang IN

Chiron Corporation, USA PΑ

PCT Int. Appl., 567 pp. SO CODEN: PIXXD2

DTPatent

LA English

GI

FAN.	CNT 7																
PATENT NO.					KIND DATE		APPLICATION NO.					D	ATE				
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ΡI	WO 2005	0472	44		A2 20050526			WO 2004-US36956					20041105				
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		CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DΖ,	EC,	EE,	EG,	ES,	FΙ,	GB,	GD,
		GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KΡ,	KR,	ΚZ,	LC,
		LK,	LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NA,	NI,
		NO,	NZ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SY,
		ТJ,	TM,	TN,	TR,	TT,	TZ,	UA,	UG,	US,	UΖ,	VC,	VN,	YU,	ZA,	ZM,	ZW
	RW:	BW,	GH,	GM,	KE,	LS,	MW,	MZ,	NA,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,
		AZ,	BY,	KG,	ΚZ,	MD,	RU,	TJ,	TM,	AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,
		EE,	ES,	FI,	FR,	GB,	GR,	HU,	ΙE,	IS,	IT,	LU,	MC,	NL,	PL,	PT,	RO,
		SE,	SI,	SK,	TR,	BF,	ВJ,	CF,	CG,	CI,	CM,	GA,	GN,	GQ,	GW,	ML,	MR,
		NE,	SN,	TD,	TG												
	US 2005	31373	99		A1		2005	0623	1	US 2	004-	9827	57		20	0041	105
	US 2005	2092	47		A1		2005	0922	1	US 2	004-	98254	43		20	0041	105
PRAI	US 2003	3-517	915P		P		2003	1107									
	US 2003	3-526	425P		P		2003	1202									
	US 2003	-526	426P		P		2003	1202									
	US 2004	-546	017P		P		2004	0219									
os	MARPAT	143:	7710														

The title compds. I [A, B, C, and D = C, N; R1-R3 = H, halo, CN, NO2, AB etc.; R4 = H, alkyl; R5-R8 = H, halo, CN, NO2, etc.; R9 = H, (un) substituted alkyl, aryl, etc.; R10 = H], useful for inhibiting fibroblast growth factor receptor 3 or treating a biol. condition mediated by fibroblast growth factor receptor 3, were prepared E.g., a multi-step synthesis of 4-amino-5-fluoro-3-[6-(4-methylpiperazin-1-yl)-1Hbenzimidazol-2-yl]-1H-quinolin-2-one (II), starting from 5-chloro-2-nitroaniline and 1-methylpiperazine, was given. The majority of the exemplary compds. I displayed an IC50 of less than 10 µM with respect to VEGFR1, VEGFR2, VEGFR3, FGFR1, CHK1, Cdc2, GSK-3, NEK-2, Cdk2, Cdk4, MEK1, NEK-2, CHK2, CK1&, Raf, Fyn, Lck, Rsk2, PAR-1, c-Kit, c-ABL, p60src, FGFR3, FLT-3, PDGFR α , and PDGFR β . In addition, many of the exemplary compds. exhibited IC50 values in the nM range and show potent activity with respect to VEGFR1, VEGFR2, VEGFR3, FGFR1, FGFR3, c-Kit, c-ABL, FLT-3, CHK1, Cdc2, GSK-3, NEK-2, Cdk2, MEK1, CHK2, Fyn, Lck, Rsk2, PAR-1, $PDGFR\alpha$, and $PDGFR\beta$ with IC50 values of less than 1 μM. The mentioned above compound II was tested in various tests and showed significant antiproliferative activity. II inhibits FGFR3 receptor phosphorylation and ERK phosphorylation in multiple myeloma cell lines with activating FGFR3 mutations.

II

L2 ANSWER 4 OF 31 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2005:451118 CAPLUS

DN 143:7709

TI Preparation of benzimidazole quinolinones and lactate salts thereof for inhibiting vascular endothelial growth factor receptor tyrosine kinase

IN Cai, Shaopei; Chou, Joyce; Harwood, Eric; Machajewski, Timothy D.; Ryckman, David; Shang, Xiao; Zhu, Shuguang

PA Chiron Corporation, USA

SO PCT Int. Appl., 215 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 7

PATENT NO. KIND DATE APPLICATION NO. DATE

PI WO 2005046589 A2 20050526 WO 2004-US36941 20041105

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,

CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,

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GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
              LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,
              NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,
              TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
         RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
              EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO,
              SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,
              NE, SN, TD, TG
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PRAI US 2003-517915P
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                                    20031202
     US 2003-526425P
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     US 2003-526426P
     US 2004-546017P
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                                    20040219
     MARPAT 143:7709
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The title compds. I [R1-R4 = H, halo, CN, NO2, etc.; R5-R8 = H, halo, NO2, AB etc.; R9 = H; R12 = H, alkyl, aryl, heterocyclyl; R13 = H, alkyl, aryl, heterocyclyl, etc.; R14 = H] and their pharmaceutically acceptable lactate salts, useful for inhibiting vascular endothelial growth factor receptor tyrosine kinase, were prepared E.g., a multi-step synthesis of 4-amino-5-fluoro-3-[6-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]-1Hquinolin-2-one (II) and its lactate salt, starting from 5-chloro-2-nitroaniline and 1-methylpiperazine, was given. The pharmaceutically acceptable salts of I have improved aqueous solubility and desirable drug substance properties. Many of the exemplary compds. I displayed an IC50 of less than 10 µM with respect to Flt-1, KDR, PDGF, c-KIT, FLT-3, VEGFR1, VEGFR2, c-Met, CSF-1, FGFR3 and/or bFGFR. In addition, many of the exemplary compds. exhibited IC50 value of less than 10 μM with respect to PDGFR. The 4-amino substituted compds. I such as II were found to be potent inhibitors of various kinases such as VEGFR2 (KDR, Flk-1), FGFR1 and PDGFR β with IC50's ranging from 10-27 nM. II inhibits FGFR3 receptor phosphorylation and ERK phosphorylation in multiple myeloma cell lines with activating FGFR3 mutations.

II

L2 ANSWER 5 OF 31 BIOTECHDS COPYRIGHT 2006 THE THOMSON CORP. on STN

AN 2005-18109 BIOTECHDS

New agent that specifically binds focal adhesion kinase (FAK) and induces apoptosis in a cell that expresses FAK, useful for treating or preventing cell proliferative disorders, such as cancer;

production of a recombinant fusion protein binding focal adhesion kinase and use of the encoding gene for a cancer gene therapy application

AU CANCE W G; GOLUBOVSKAYA V

PA UNIV FLORIDA

PI WO 2005049852 2 Jun 2005

AI WO 2004-US38363 17 Nov 2004

PRAI US 2003-523232 17 Nov 2003; US 2003-523232 17 Nov 2003

DT Patent

LA English

OS WPI: 2005-396127 [40]

AN 2005-18109 BIOTECHDS

AB DERWENT ABSTRACT:

NOVELTY - An agent that specifically binds focal adhesion kinase (FAK) and induces apoptosis in a cell that expresses focal adhesion kinase, is new

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for: (1) inducing apoptosis in a cancer cell; (2) a composition comprising a sequence of 12 amino acids fully defined in the specification (SEQ ID NO: 1 and/or 3), or its fragments, variants or derivatives, where the composition binds FAK and modulates cellular apoptosis, cell motility and cell metastasis; or a composition comprising a chimeric molecule comprising SEQ ID NO: 1 and/or 3, or derivatives, fragments or variants, and a targeting domain; (3) treating cancer; and (4) a vector expressing SEQ ID NO: 1 and/or 3, or its derivatives, fragments and variants, and comprising a FAK binding chimeric molecule.

BIOTECHNOLOGY - Preferred Agent: The agent comprises the amino acid sequence of SEQ ID NO: 1 and/or SEQ ID NO: 3, or their variants. The agent is a chimeric molecule that comprises SEQ ID NO: 1 and/or 3, and a membrane permeabilization domain. Preferred Method: Inducing apoptosis in a cancer cell comprises contacting the cancer cell with the above-mentioned agent that specifically binds FAK at a site that is specifically bound by a peptide comprising SEQ ID NO: 1 and/or SEQ ID NO: 3. Treating cancer comprises administering to a patient a composition comprising SEQ ID NO: 1 and/or 3, or the derivatives, fragments and variants; contacting a cancer cell the above composition; binding the composition to FAK at a site that is specifically bound by a peptide comprising SEQ ID NO: 1 and/or 3, or the derivatives, variants and fragments; and treating the cancer. The composition enters a cell via a cellular membrane. It induces apoptosis in an abnormal cell expressing FAK. It inhibits cell motility and the metastasis of a tumor cell. The step of contacting a cell with the composition induces apoptosis and/or inhibits cell motility and/or metastasis. Alternatively, treating a cancer patient comprises administering a chimeric fusion protein composition to a patient; contacting a tumor cell with the chimeric fusion protein composition; and modulating the activity of the tumor cell, thus, treating a cancer patient. The chimeric fusion molecule comprises a first domain which binds to focal adhesion kinase molecules in or on a cell. The FAK molecule binding first domain of the chimeric fusion protein is identified by SEQ ID NO: 1 and/or 3, or their derivatives, fragments and variants. The chimeric fusion protein composition comprises a second domain comprising a cell permeabilization domain. The activity of a tumor cell is apoptosis, motility and invasion. The chimeric fusion protein composition induces apoptosis in a tumor cell, inhibits cell motility and invasion, and inhibits metastasis of a tumor cell. The chimeric fusion protein is co-administered with one or more chemotherapeutic agents, such as cyclophosphamide (CTX, 25 mg/kg/day, p.o.), taxanes (paclitaxel or docetaxel), busulfan, cisplatin, cyclophosphamide, methotrexate, daunorubicin, doxorubicin, melphalan,

cladribine, vincristine, vinblastine or chlorambucil. Treating cancer alternatively comprises administering to a patient a peptide comprising SEQ ID NO: 1 and/or SEQ ID NO: 3, or their derivatives, fragments and variants; contacting a cancer cell with the peptide(s); binding of the peptide(s) to focal adhesion kinase at a site that is specifically bound by a peptide comprising SEQ ID NO: 1 and/or 3, or derivatives, variants and fragments; and treating cancer. The peptide(s) enter(s) a cell via a cellular membrane, and induce(s) apoptosis in an abnormal cell expressing FAK, and inhibit(s) cell motility or metastasis of a tumor cell. The step of contacting a cell with the peptide(s) induces apoptosis and/or inhibits cell motility and/or metastasis. Preferred Composition: The composition further comprises a cellular permeabilization domain. The composition is administered to a cell, and apoptosis is induced in a tumor cell, and the motility or metastasis of the cell is inhibited. The targeting domain is a membrane permeabilization domain, particularly an HIV TAT domain. The targeting domain may also be an antibody specific for a tumor antigen. The tumor antigens comprise HER-2/neu; intestinal carboxyl esterase (liver, intestine, kidney); alpha-fetoprotein (liver); M-CSF (liver, kidney); MUC1 (glandular epithelia); p53; PRAME (testis, ovary, endometrium, adrenals); PSMA (prostate, CNS, liver); RAGE-1 (retina); RU2AS (testis, kidney, bladder); survivin; Telomerase; WT1 (testis, ovary, bone marrow, spleen); or CA125 (ovarian). Preferred Vector: The SEQ ID NO: 1 and/or SEQ ID NO: 3, or derivatives, fragments and variants, are expressed in a tumor cell. The chimeric molecule comprises a focal adhesion kinase binding molecule and a second domain. The FAK binding domain is identified by SEQ ID NO: 1 and/or 3, or derivatives, fragments and variants. The second domain is an effector molecule that modulates the activity of a tumor cell. The effector molecule is cytotoxic to a tumor cell and is antiangiogenic.

ACTIVITY - Cytostatic. No biological data given. MECHANISM OF ACTION - Gene therapy; Apototic.

USE - The composition and methods are useful for inducing apoptosis or for treating or preventing cell proliferative disorders, such as cancer.

ADMINISTRATION - Dosages may range from about 0.1-100 (typically 0.1-10) mg/day. Administration can be oral, rectal, transdermal, vaginal, transmucosal, intestinal, intramuscular, subcutaneous, intrathecal, intravenous, intraperitoneal, and the like.

EXAMPLE - No relevant example given. (94 pages)

L2 ANSWER 6 OF 31 BIOTECHDS COPYRIGHT 2006 THE THOMSON CORP. on STN AN 2005-04975 BIOTECHDS

Novel antibody capable of neutralizing inhibition of NK cell cytotoxicity, useful for treating cancer, infectious disease or immune disorder;

for cancer, leukemia, lymphoma, neuroblastoma, glioma, angiogenesis, psoriasis, atherosclerosis, stenosis, restenosis, influenza virus, varicella-zoster virus, herpes simplex virus, respiratory-syncytial virus, papilloma virus, HIV virus, Staphylococcus pyogenes, protozoon, parasitic infection or immune disorder therapy

AU MORETTA A; DELLA CHIESA M

PA INNATE PHARMA; UNIV GENOVA

PI WO 2005003172 13 Jan 2005

AI WO 2004-IB2464 1 Jul 2004

PRAI US 2004-545471 19 Feb 2004; US 2003-483894 2 Jul 2003

DT Patent

TI

LA English

OS WPI: 2005-091766 [10]

AN 2005-04975 BIOTECHDS

AB DERWENT ABSTRACT:

NOVELTY - An antibody (I) that binds with two or more different human inhibitory receptor gene products, where (I) is capable of neutralizing inhibition of NK cell cytotoxicity, is new.

DETAILED DESCRIPTION - An antibody (I) that binds with two or more different human inhibitory Lys-Ile-Arg receptor gene products, where (I) is capable of neutralizing Lys-Ile-Arg-mediated inhibition of NK cell cytotoxicity in NK cells expressing one or more of the two different human inhibitory Lys-Ile-Arg receptors. INDEPENDENT CLAIMS are also included for the following: (1) a hybridoma (II) comprising a B cell from a non-human mammalian host that has been immunized with an antigen that comprises an epitope present on an inhibitory Lys-Ile-Arg polypeptide, fused to an immortalized cell, where (II) produces (I); (2) producing (I); and (3) a composition (III) comprising (I) in an amount effective to detectably potentiate NK cell cytotoxicity in a patient or in a biological sample comprising NK cells, and a carrier or excipient, where (I) is incorporated in a liposome.

BIOTECHNOLOGY - Preparation: (I) is produced by: (a) immunizing a non-human mammal with an immunogen comprising an inhibitory Lys-Ile-Arg polypeptide, preparing (I) from the immunized animal, where (I) bind Lys-Ile-Arg polypeptide, selecting antibodies (I) that cross-react with two or more different human inhibitory Lys-Ile-Arg receptor gene products, and selecting (I), where the steps of selecting is optionally reversed, (b) selecting (I) from a library or repertoire, and selecting (I), (c) culturing (II) under conditions that cause the expression of (I), and separating (I) from (II), or (d) isolating (I) from (II), optionally modifying the DNA so as to encode (I) (modified or derivatized antibody chosen from humanized antibody, chimeric antibody, single chain antibody or an immunoreactive fragment of an antibody), inserting the DNA or modified DNA into an expression vector, where (I) is capable of being expressed when the expression vector is present in a host grown under appropriate conditions, transfecting a host cell with the expression vector, where the host cell does not otherwise produce immunoglobulin protein, culturing the transfected host cell under conditions which cause the expression of (I), and isolating (I) produced by the transfected host cell. (I) cause 50% or more potentiation in NK cytotoxicity. Preferred Method: Further involves producing fragments of (I). Preferred Antibody: (I) is not Asn-Lys-Val-Ser-Phel. (I) binds Lys-Ile-Arg2Asp-Leul and Lys-Ile-Arg2Asp-Leu2/3. (I) inhibits the binding of a HLA-C allele molecule having a Lys residue at position 80 to a human Lys-Ile-Arg2Asp-Leu1 receptor, and the binding of a HLA-C allele molecule having an Asn residue at position 80 to human Lys-Ile-Arg2DL2/3 receptors. (I) binds to substantially the same epitope as monoclonal antibody Asp-Phe200. (I) is a monoclonal antibody or their fragments (Asp-Phe200 or their fragments). (I) is an antibody fragment chosen from Fab, Fab', Fab'-SH, F(ab')2, Fv, diabodies, single-chain antibody fragment, or a multispecific antibody comprising a number of different antibody fragments. (I) is a humanized antibody or a chimeric antibody. (I) is conjugated or covalently bound to a toxin, detectable moiety or solid support. Preferred Composition: (III) further comprises a therapeutic agent chosen from immunomodulatory agent, hormonal agent, chemotherapeutic agent, antiangiogenic agent, apoptotic agent, second antibody that binds to and inhibits an inhibitory Lys-Ile-Arg receptor, anti-infective agent, targeting agent or an adjunct compound. The immunomodulatory agent is chosen from IL-1alpha IL-1beta, IL-2, IL-3, IL-4, IL-5, IL-6, IL-7, IL-8, IL-9, IL-10, IL-11, IL-12, IL-13, IL-15, IL-21, TGF-beta, GM-CSF, M-CSF, G-CSF, TNF-alpha, TNF-beta, LAF, TCGF, BCGF, TRF, BAF, BDG, MP, LIF, OSM, TMF, PDGF, IFN-alpha, IFN-beta, or IFN-gamma. The chemotherapeutic agent is chosen from alkylating agents, antimetabolites, cytotoxic antibiotics, adriamycin, dactinomycin, mitomycin, carminomycin, daunomycin, doxorubicin, tamoxifen, taxol, taxotere, vincristine, vinblastine, vinorelbine, etoposide (VP-16), 5-fluorouracil (5FU), cytosine arabinoside, cyclophosphamide, thiotepa, methotrexate, camptothecin, actinomycin-D, mitomycin C, cisplatin (CDDP), aminopterin, combretastatin(s), other vinca alkyloids, and their derivatives or prodrugs. The hormonal agent is chosen from leuprorelin, goserelin, triptorelin, buserelin, tamoxifen, toremifene, flutamide, nilutamide,

cyproterone bicalutamid anastrozole, exemestane, letrozole, fadrozole medroxy, chlormadinone, megestrol, other LHRH agonists, other anti-estrogens, other anti-androgens, other aromatase inhibitors, and other progestagens. The adjunct compound is chosen from phenothiazines, substituted benzamides, antihistamines, butyrophenones, corticosteroids, benzodiazepines, cannabinoids, zoledronic acid, pamidronic acid, erythropoietin, G-CSF, filgrastin, lenograstim, darbepoietin, other ant-emetics, other serotonin antagonists, other bisphosphonatesor other hematopoietic growth factors. The anti-apoptotic agents is an antisense nucleotide sequence, RNAi, siRNA or small molecule chemical compound that inhibits the expression of a gene chosen from bcr-abl, bcl-2, Bcl-x1, Mc1-1, Bak, A1, or A20. The anti-angiogenic agent is chosen from neutralizing antibodies, antisense RNA, siRNA, RNAi, RNA aptamers or ribozymes directed against a gene encoding VEGF, a gene encoding a VEGF receptors, VEGF, or a VEGF receptor, or a variant of VEGF possessing antagonistic properties against VEGF. The second antibody that binds to and inhibits an inhibitory Lys-Ile-Arg receptor is an antibody or a derivative or its fragment that binds to an epitope of an inhibitory Lys-Ile-Arg receptor that differs from the epitope bound by the antibody that binds a common determinant present on two or more different human inhibitory Lys-Ile-Arg receptor gene products. The additional substance chosen from nucleic acid molecule for the delivery of genes for gene therapy, a nucleic acid molecule for the delivery of antisense RNA, RNAi or siRNA for suppressing a gene in an NK cell, or a toxin or a drug for the targeted killing of NK cells, is additionally incorporated into the liposome.

ACTIVITY - Cytostatic; Antiinflammatory; Antiangiogenic; Antipsoriatic; Antiarteriosclerotic; Vasotropic; Virucide; Hepatotropic; Antibacterial; Protozoacide.

MECHANISM OF ACTION - Stimulator of activity of NK cell (claimed). No supporting data is given.

USE - (I) is useful for detecting the presence of NK cells bearing an inhibitory Lys-Ile-Arg on their cell surface in a biological sample or a living organism which involves contacting the biological sample or living organism with (I) conjugated or covalently bound to a detectable moiety, and detecting the presence of (I) in the biological sample or living organism. (I) is useful for purifying NK cells bearing an inhibitory Lys-Ile-Arg on their cell surface, from a sample which involves contacting the sample with (I) under conditions that allow the NK cells bearing an inhibitory Lys-Ile-Arg on their cell surface to bind to (I), where (I) is conjugated or covalently bound to a solid support, and eluting the bound NK cells from (I). (III) is useful for potentiating NK cell activity in a patient suffering from cancer (e.g., squamous cell carcinoma, leukemia, acute lymphocytic leukemia, acute lymphoblastic leukemia, B-cell lymphoma, T-cell lymphoma, Hodgkins lymphoma, non-Hodgkins lymphoma, hairy cell lymphoma, Burketts lymphoma, acute or chronic myelogenous leukemias, promyelocytic leukemia, fibrosarcoma, rhabdomyoscarcoma, melanoma, seminoma, teratocarcinoma, neuroblastoma, glioma or astrocytoma), other proliferative disorder (e.g., hyperplasias, fibrosis, angiogenesis, psoriasis, atherosclerosis, stenosis or restenosis following angioplasty or other diseases characterized by smooth muscle proliferation in blood vessels), an infectious disease caused by a virus (e.g., hepatitis type A, hepatitis type B, hepatitis type C, influenza, varicella, adenovirus, herpes simplex type I, herpes simplex type 2, rinderpest, echovirus, rotavirus, respiratory syncytial virus, papilloma virus, papilloma virus, cytomegalovirus, echinovirus, arbovirus, huntavirus, coxsackie virus, mumps virus, rubella virus, polio virus or human immunodeficiency virus type I or type 2), bacteria (e.g., Staphylococcus or S.pyogenes), protozoa or parasite, or an immune disorder. The above method further involves administering to the patient an appropriate additional therapeutic agent chosen from immunomodulatory agent, hormonal agent, chemotherapeutic agent, antiangiogenic agent, apoptotic agent, second antibody that binds to and inhibits an inhibitory KIR receptor, anti-infective agent, targeting agent or an adjunct

compound, where the additional therapeutic agent is administered to the patient as a single dosage form together with the antibody, or as separate dosage form (all claimed).

ADMINISTRATION - (I) is administered by oral, parenteral, topical, rectal, buccal or vaginal route at dosages 10-500 mg/m2.

EXAMPLE - To prepare Asp-Phe200 monoclonal antibody, Balb/C mice were immunized with activated polyclonal or monoclonal cell lines. After difference cell fusions, the monoclonal antibodies were first selected for their ability to cross react with EB6 and GL183 positive NK cell lines and clones. Positive monoclonal antibodies were further screened for their ability to reconstitute lysis by EB6 positive or GL183 positive NK clones of Cw4 or Cw3 positive targets, respectively. The monoclonal antibody was found to react with various members of Lys-Ile-Arg family including Lys-Ile-Arg2Asp-Leu1 and Lys-Ile-Arg2Asp-Leu2/3. (95 pages)

L2 ANSWER 7 OF 31 BIOTECHDS COPYRIGHT 2006 THE THOMSON CORP. on STN

AN 2005-05180 BIOTECHDS

Composition, useful for treating tumors comprises a chimeric fusion molecule comprising an antibody and a therapeutic effector domain that modulates cellular activity, e.g., endostatin;

fusion protein and antibody for use in disease therapy

AU SHIN S; MORRISON S L; ROSENBLATT J D

PA UNIV MIAMI

PI US 2005008649 13 Jan 2005

AI US 2004-858980 2 Jun 2004

PRAI US 2004-858980 2 Jun 2004; US 2003-475015 2 Jun 2003

DT Patent

LA English

OS WPI: 2005-080491 [09]

AN 2005-05180 BIOTECHDS

AB DERWENT ABSTRACT:

NOVELTY - A pharmaceutical composition comprises a chimeric fusion molecule, where the chimeric fusion molecule comprises an antigen binding domain (antibody) and a therapeutic effector domain, e.g., endostatin.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following: (1) an isolated nucleic acid molecule encoding the chimeric molecule cited above; (2) targeting endostatin to a tumor cell in an animal subject; and (3) a kit comprising a chimeric molecule comprising a domain targeting the chimeric molecule to HER2/neu tumor antigen and a domain comprising an anti-angiogenic agent.

BIOTECHNOLOGY - Preferred Composition: The antigen-binding domain comprises an isolated antibody or its fragment. The isolated antibody or its fragment comprises immunoglobulin heavy and light chains, or immunoglobulin variable and constant regions. The antibody or its fragment is any immunoglobulin isotype. The antibody or fragment is IgA, IgM, IgG, IgE or IgD, preferably IgG1, IgG2, IgG3, and IgG4. The antibody or its fragment is any single chain, two-chain, diabody, minibody, bispecific, multi-chain proteins and glycoproteins belonging to the classes of polyclonal, monoclonal, chimeric, and heteroimmunoglobulins. The antibody or fragment is synthetic and/or genetically engineered variants of any class and isotype immunoglobulins. The isolated immunoglobulin variable region comprise Fab, Fab', F(ab')2, and Fv fragments. The isolated immunoglobulin regions comprise immunoglobulin constant regions, CH1, hinge, CH2 and CH3. The isolated antibody or fragments are fused to the therapeutic effector domain via the immunoglobulin constant region, CH3. The therapeutic effector domain comprises a molecule for modulating cellular activity and/or is cytolytic. The therapeutic effector domain's cellular modulating activity inhibits angiogenesis or modulates immune cell responses. The therapeutic effector domain is selected from endostatin, angioarrestin, angiostatin (plasminogen fragment), anti-angiogenic antithrombin III, cartilage-derived inhibitor (CDI), CD59 complement fragment, fibronectin fragment, gro-beta, heparinases, heparin hexasaccharide fragment, human chorionic gonadotropin (hCG), interferon

alpha/beta/gamma, interferon inducible protein (IP-10), interleukin-12, kringle 5 (plasminogen fragment), metalloproteinase inhibitors (TIMPs), 2-methoxyestradiol, placental ribonuclease inhibitor, plasminogen activator inhibitor, platelet factor-4 (PF4), prolactin 16 kD fragment, proliferin-related protein (PRP), various retinoids, tetrahydrocortisol-S, thrombospondin-1 (TSP-1), transforming growth factor-beta (TGF-beta), vasculostatin, and vasostatin (calreticulin fragment). The therapeutic effector domain is endostatin, angiostatin, basement-membrane collagen-derived anti-angiogenic factors tumstatin, canstatin, or arrestin. The therapeutic effector domain comprises chemokines, radionuclides and/or interferon. The nuclides are 90Y, 131I, 111In, 125I. The therapeutic effector domain is a cytolytic molecule. The cytolytic molecule is TNF, enzymes, mediators of apoptosis, and/or toxin. The toxin is selected from ricin, abrin, diphtheria, gelonin, Pseudomonas exotoxin A, Crotalus durissus terrificus toxin, Crotalus adamenteus toxin, Naja naja toxin, and Naja mocambique toxin. The mediators of apoptosis include ICE-family of cysteine proteases, apoptin, Bcl-2 family of proteins, Bax, bclXs and caspases. The enzymes are derived from cytotoxic T lymphocytes or LAK cells. The enzymes are perforin, Fas ligand, and granzymes. The antibody domain binds to a tumor antigen, the tumor antigen is HER2/neu or EGFR. The tumor specific antibody binds to HER2/neu, EGFR, alpha-actinin-4; BCR-ABL (b3a2); CASP-8; beta-catenin (melanoma); Cdc27; CDK4; dek-can fusion protein; Elongation factor 2; ETV6-AML1 fusion protein; LDLR-fucosyltransferaseAS fusion protein; hsp70-2; KIAA0205; MART2; MUM-If; MUM-2; MUM-3; neo-PAP; Myosin class I; OS-9q; pml-RARalpha fusion protein; PTPRK; K-ras; N-ras; CEA; qp100/Pmel17; Kallikrein 4; mammaglobin-A; Melan-A/MART-1; PSA; TRP-1/qp75; TRP-2; tyrosinase; CPSF; EphA3; G250/MN/CAIX; Intestinal carboxyl esterase; alpha-fetoprotein; M-CSF; MUC1; p53; PRAME; PSMA; RAGE-1; RU2AS; survivin; Telomerase; WT1; and CA125. The anti-angiogenic agent is endostatin and/or gleevec. The chimeric fusion protein is administered to a patient in need of such therapy. The serum half-life of the chimeric fusion protein is at least about 50%, 80% or at least 100% greater than the half-life of the anti-HER2/neu antibody or endostatin. The chimeric fusion protein inhibits angiogenesis by at least about 10%, 50 or 100% as compared to an untreated individual. Preferred Method: Targeting endostatin to a tumor cell in an animal subject comprises administering to the animal subject a composition comprising a chimeric molecule comprising an endostatin domain and an Ig domain. Preferred Kit: The domain comprising the anti-angiogenic agent is endostatin or its fragments. The domain targeting the chimeric molecule to HER2/neu tumor antigen is an antibody or its fragments. The antibody or fragment is polyclonal or monoclonal. The kit further comprises a pharmaceutical composition. The instructions for carrying out the method are provided.

ACTIVITY - Cytostatic; Antiangiogenic. No biological data given. MECHANISM OF ACTION - Gene therapy; Glycolysis inhibitor

USE - The composition and methods are useful for targeting and modulating the activity of tumor cells, or for treating or preventing tumors. Treating a tumor in an animal subject comprises administering to the animal subject the above chimeric molecule fusion composition, where the administration of the composition ameliorates the tumor in the animal subject. The chimeric fusion molecule composition is administered with one or more therapeutic agents and/or adjuvants. The therapeutic agents comprise antiangiogenic antibodies, tumor antigen specific antibodies, glycolysis inhibitor agents, antiangiogenic agents, chemotherapeutic agents, radiotherapy, radionuclides, or drugs that ameliorate the symptoms of a patient. The chimeric fusion molecule composition is administered to a patient in combination with metronomic therapy (all claimed).

ADMINISTRATION - Dosages may range from about 1 microg-10 mg units per day. Administration can be intravenous, intraperitoneal, subcutaneous, intramuscular, topical, intraarticular or intradermal. EXAMPLE - No relevant example given. (48 pages)

- L2 ANSWER 8 OF 31 CAPLUS COPYRIGHT 2006 ACS on STN
- AN 2005:599331 CAPLUS
- DN 143:379946
- TI Recruitment and activation of phospholipase Cγ1 by vascular endothelial growth factor receptor-2 are required for tubulogenesis and differentiation of endothelial cells. [Erratum to document cited in CA139:095574]
- AU Meyer, Rosana D.; Latz, Catharina; Rahimi, Nader
- CS Departments of Ophthhalmology and Biochemistry, Boston University School of Medicine, Boston, MA, 02118, USA
- SO Journal of Biological Chemistry (2005), 280(27), 25948 CODEN: JBCHA3; ISSN: 0021-9258
- PB American Society for Biochemistry and Molecular Biology
- DT Journal
- LA English
- AB New results based on extensive anal. of plasmids and use of phospho-specific anti-VEGFR-2 (phospho-tyrosine 1173 VEGFR-2) revealed that th eF1173/CKR construct, which was used to express F1173/CKR in PAE cells, was not correct. The wrong plasmid was used for the previous studies. All the analyses were repeated with the correct plasmid. The key conclusion of the paper remains unaltered: PLCγ1 is required for VEGFR-2-mediated tubulogenesis. However, PLCγ1 phosphorylation by VEGFR-2 is mediated by tyrosines 1006 and 1173, and not by tyrosine 1006 alone. Mutation of either of these tyrosines abolishes the ability of VEGFR-2 to promote phosphorylation of PLCγ1. An addnl. figure 8 showing a TCL blot of anti-phospho-PLC-γ1 is given.
- L2 ANSWER 9 OF 31 CAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 1
- AN 2005:1079378 CAPLUS
- DN 143:380203
- TI VEGF receptor 1 signaling is essential for osteoclast development and bone marrow formation in colony-stimulating factor 1-deficient mice
- AU Niida, Shumpei; Kondo, Takako; Hiratsuka, Sachie; Hayashi, Shin-Ichi; Amizuka, Norio; Noda, Tetsuo; Ikeda, Kyoji; Shibuya, Masabumi
- CS Department of Bone and Joint Disease, Research Institute, National Center for Geriatrics and Gerontology, Aichi, 474-8522, Japan
- SO Proceedings of the National Academy of Sciences of the United States of America (2005), 102(39), 14016-14021 CODEN: PNASA6; ISSN: 0027-8424
- PB National Academy of Sciences
- DT Journal
- LA English
- VEGF receptor 1 (VEGFR-1/Flt-1) is a high-affinity tyrosine kinase (TK) AB receptor for VEGF and regulates angiogenesis as well as monocyte/macrophage functions. The authors previously showed that the osteoclast deficiency in osteopetrotic Csflop/Csflop (op/op) mice is gradually restored in an endogenous, VEGF-dependent manner. However, the mol. basis of the recovery is still not clear. To examine which VEGFR is important and to clarify how colony-stimulating factor 1 (CSF-1) and VEGF signals interact in osteoclastogenesis, the authors introduced a VEGFR-1 signaling deficiency (Flt1TK-/-) into op/op mice. The original Flt1TK-/- mice showed mild osteoclast reduction without bone marrow suppression. The double mutant (op/opFlt1TK-/-) mice, however, exhibited very severe osteoclast deficiency and did not have nos. of osteoclasts sufficient to form the bone marrow cavity. The narrow bone marrow cavity in the op/opFlt1TK-/- mice was gradually replaced with fibrous tissue, resulting in severe marrow hypoplasia and extramedullary hematopoiesis. In addition to osteoclasts, osteoblasts also decreased in number

in the op/opFlt1TK-/- mice. These results strongly suggest that the interaction of signals by VEGFR-1 and the CSF-1 receptor plays a predominant role not only in osteoclastogenesis but also in the maintenance of bone marrow functions.

RE.CNT 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

- L2 ANSWER 10 OF 31 CAPLUS COPYRIGHT 2006 ACS on STN
- AN 2004:718635 CAPLUS
- DN 141:236683
- TI Regeneration associated genes (RAGs) polypeptides, nucleic acids, and their use in related neuronal disease treatment and drug screening
- IN Strittmatter, Stephen S.
- PA Yale University, USA
- SO PCT Int. Appl., 114 pp.
- CODEN: PIXXD2
 DT Patent
- LA English
- FAN.CNT 1

ran.	PATENT NO.					KIND DATE				APPLICATION NO.						DATE			
ΡI	WO	2004074433			A2 20040902		WO 2004-US2758						20040130						
		W:	ΑE,	ΑE,	AG,	AL,	AL,	AM,	AM,	AM,	AT,	AT,	AU,	ΑZ,	ΑZ,	BA,	BB,	ВG,	
			BG,	BR,	BR,	BW,	BY,	BY,	ΒŻ,	ΒZ,	CA,	CH,	CN,	CN,	CO,	CO,	CR,	CR,	
			CU,	CU,	CZ,	CZ,	DE,	DE,	DK,	DK,	DM,	DΖ,	EC,	EC,	EE,	EE,	EG,	ES,	
			ES,	FI,	FI,	GB,	GD,	GE,	GE,	GH,	GM,	HR,	HR,	HU,	HU,	ID,	IL,	IN,	
			IS,	JP,	JP,	KE,	KE,	KG,	KG,	KΡ,	ΚP,	KΡ,	KR,	KR,	ΚZ,	ΚZ,	ΚZ,	LC,	
			LK,	LR,	LS,	LS,	LT,	LU,	LV,	MA,	MD,	MD,	MG,	MK,	MN,	MW,	MX,	MX,	
			MZ,	MZ,	NA,	NI													
		RW:	BW,	GH,	GM,	KE,	LS,	MW,	ΜZ,	SD,	SL,	SZ,	TZ,	ŪĠ,	ZM,	ZW,	ΑT,	BE,	
			BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FΙ,	FR,	GB,	GR,	HU,	ΙE,	IT,	LU,	
			MC,	NL,	PT,	RO,	SE,	SI,	SK,	TR,	BF,	ВJ,	CF,	CG,	CI,	CM,	GA,	GN,	
•			GQ,	GW,	ML,	MR,	ΝĒ,	SN,	TD,	TG,	BF,	ВJ,	CF,	CG,	CI,	CM,	GΑ,	GN,	
			GQ,	GW,	ML,	MR,	ΝE,	SN,	TD,	TG									

PRAI US 2003-443485P P 20030130

The present invention relates generally to regeneration associated genes (RAGs). Specifically provided are 281-RAGs up-regulated mols. identified by microarray studies of L3-5 DRG (dorsal root ganglia) neurons one week after ipsilateral sciatic nerve transection. The significant upregulation of four RAGs: myosin-X, SOX11, FLRT3, Fn14, is demonstrated. The overexpression of Fn14, a receptor for tumor necrosis-like weak inducer of apoptosis (TWEAK), promotes neurite extension and growth cone formation in PC12 cells. Fn14 phys. interacts with the Rho family GTPase Rac1, and Rac1 is necessary for the Fn14-induced neuronal cell effects. Furthermore, the invention relates to structure-based methods and compns. useful in designing, identifying, and producing mols. which act as functional modulators of RAGs and RAG polypeptides. The invention further relates to methods of detecting, preventing, and treating RAG-associated disorders. The RAG ID NOs: 1-281 were not made available in the release of this patent.

- L2 ANSWER 11 OF 31 CAPLUS COPYRIGHT 2006 ACS on STN
- AN 2004:564043 CAPLUS
- DN 141:254708
- TI Substitution of C-terminus of VEGFR-2 with VEGFR-1 promotes VEGFR-1 activation and endothelial cell proliferation
- AU Meyer, Rosana D.; Singh, Amrik; Majnoun, Fredric; Latz, Catharina; Lashkari, Kameran; Rahimi, Nader
- CS Departments of Ophthalmology and Biochemistry, School of Medicine, Boston University, Boston, MA, 02118, USA
- SO Oncogene (2004), 23(32), 5523-5531 CODEN: ONCNES; ISSN: 0950-9232
- PB Nature Publishing Group
- DT Journal
- LA English
- AB VEGFR-1 is devoid of ligand-dependent tyrosine autophosphorylation and its activation is not associated with proliferation of endothelial cells. The mol. mechanism responsible for this characteristic of VEGFR-1 is not

known. In this study, the authors show that VEGFR-1 is devoid of ligand-dependent downregulation and failed to stimulate intracellular calcium release, cell migration and angiogenesis in vitro. To understand the mol. mechanisms responsible for the poor tyrosine autophosphorylation of VEGFR-1, the authors have either deleted the C-terminus of VEGFR-1 or exchanged it with the C-terminus of VEGFR-2. The deletion of C-terminus of VEGFR-1 did not reverse its defective ligand-dependent autophosphorylation. The C-terminus-swapped VEGFR-1, however, displayed ligand-dependent autophosphorylation, downregulation and also conveyed strong mitogenic responses. Thus, the carboxyl tail of VEGFR-1 restrains the ligand-dependent kinase activation and downregulation of VEGFR-1 and its ability to convey the angiogenic responses in endothelial cells.

RE.CNT 45 THERE ARE 45 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

- L2 ANSWER 12 OF 31 CAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 2
- AN 2004:619591 CAPLUS
- DN 141:241794
- TI Colony-Stimulating Factor-1 Blockade by Antisense Oligonucleotides and Small Interfering RNAs Suppresses Growth of Human Mammary Tumor Xenografts in Mice
- AU Aharinejad, Seyedhossein; Paulus, Patrick; Sioud, Mouldy; Hofmann, Michael; Zins, Karin; Schaefer, Romana; Stanley, E. Richard; Abraham, Dietmar
- CS Laboratory for Cardiovascular Research, Department of Anatomy and Cell Biology, Vienna Medical University, Vienna, A-1090, Austria
- SO Cancer Research (2004), 64(15), 5378-5384 CODEN: CNREA8; ISSN: 0008-5472
- PB American Association for Cancer Research
- DT Journal
- LA English
- Colony-stimulating factor (CSF)-1 is the primary regulator of tissue macrophage production CSF-1 expression is correlated with poor prognosis in breast cancer and is believed to enhance mammary tumor progression and metastasis through the recruitment and regulation of tumor-associated macrophages. Macrophages produce matrix metalloproteases (MMPs) and vascular endothelial growth factor, which are crucial for tumor invasion and angiogenesis. Given the important role of CSF-1, the authors hypothesized that blockade of CSF-1 or the CSF -1 receptor (the product of the c-fms proto-oncogene) would suppress macrophage infiltration and mammary tumor growth. Human MCF-7 mammary carcinoma cell xenografts in mice were treated with either mouse CSF-1 antisense oligonucleotide for 2 wk or five intratumoral injections of either CSF-1 small interfering RNAs or c-fms small interfering RNAs. These treatments suppressed mammary tumor growth by 50%, 45%, and 40%, resp., and selectively down-regulated target protein expression in tumor lysates. Host macrophage infiltration; host MMP-12, MMP-2, and vascular endothelial growth factor A expression; and endothelial cell proliferation within tumors of treated mice were decreased compared with tumors in control In addition, mouse survival significantly increased after CSF -1 blockade. These studies demonstrate that CSF-1 and CSF-1 receptor are potential therapeutic
- RE.CNT 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT
- L2 ANSWER 13 OF 31 CAPLUS COPYRIGHT 2006 ACS on STN

targets for the treatment of mammary cancer.

- AN 2003:1009610 CAPLUS
- DN 140:210957
- TI The Carboxyl terminus controls ligand-dependent activation of VEGFR-2 and its signaling

- AU Meyer, Rosana D.; Singh, Amrik J.; Rahimi, Nader
- CS School of Medicine, Departments of Ophthalmology and Biochemistry, Boston University, Boston, MA, 02118, USA
- SO Journal of Biological Chemistry (2004), 279(1), 735-742 CODEN: JBCHA3; ISSN: 0021-9258
- PB American Society for Biochemistry and Molecular Biology
- DT Journal
- LA English
- Vascular endothelial growth factor receptor-2 (VEGFR-2/FLK-1) is a AΒ receptor tyrosine kinase whose activation stimulates angiogenesis The authors recently generated a chimeric VEGFR-2 in which the extracellular domain of VEGFR-2 was replaced with the extracellular domain of human colony stimulating factor-1 receptor and expressed in endothelial cells. To study the contribution of the C-terminus to activation of VEGFR-2, the authors created a panel of truncated receptors in which the C-terminus of VEGFR-2 was progressively deleted. Removal of the entire C-terminus eliminated activation of VEGFR-2, its ability to activate signaling proteins, and its ability to stimulate cell proliferation. C-terminus-deleted VEGFR-2 exhibited impaired ligand-dependent down-regulation and inhibited the activation of wild-type receptor in a dominant-neg. fashion. Furthermore, introducing the C-terminus of another receptor, i.e., VEGFR-1, restored the ligand-dependent activation of the C-terminus-deleted VEGFR-2 and its ability to stimulate cell proliferation. The authors' findings suggest that the C-terminus of VEGFR-2 plays a critical role in VEGFR-2 activation, its ability to activate signaling proteins, and its ability to induce biol. responses. The presence of at least 57 amino acids at the C-terminus of VEGFR-2 are required for VEGFR-2 activation. Thus, the authors propose that the C-terminus is required for activation of VEGFR-2, and absence of the C-terminus renders VEGFR-2 inactive.
- RE.CNT 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT
- L2 ANSWER 14 OF 31 CAPLUS COPYRIGHT 2006 ACS on STN
- AN 2004:761279 CAPLUS
- DN 141:393566
- TI Macrophages: modulators of breast cancer progression
- AU Lin, Elaine Y.; Pollard, Jeffrey W.
- CS Center for the Study of Reproductive Biology and Women's Health,
 Departments of Developmental and Molecular Biology and Obstetrics,
 Gynecology and Women's Health, Albert Einstein College of Medicine, New
 York, NY, 10461, USA
- SO Novartis Foundation Symposium (2004), 256(Cancer and Inflammation), 158-172
 - CODEN: NFSYF7; ISSN: 1528-2511
- PB John Wiley & Sons Ltd.
- DT Journal: General Review
- LA English
- A review. In many solid turnout types the abundance of tumor associated AB macrophages (TAMs) is correlated with poor prognosis. Macrophages are recruited through the local expression of chemoattractants such as colony stimulating factor 1 (CSF-1) and macrophage chemoattractant protein 1. Over-expression of both of these factors is correlated with poor prognosis in a variety of tumors. Macrophages also play an important physiol. role in the development and function of many tissues ranging from the brain to the mammary gland. Thus we hypothesized that TMs are recruited to turnouts through the expression of potent chemoattractants and in this site their normal trophic functions are subverted to promote turnout progression and metastasis. To test this hypothesis we crossed mice deficient in macrophages owing to being homozygous for a null mutation in the CSF-1 gene with mice pre-disposed to mammary cancer due to the epithelial restricted expression of the polyoma middle T oncoprotein. The absence of macrophages did not change the incidence or growth of the primary turnout

but decreased its rate of progression and inhibited metastasis. These data are explicable through the known macrophage functions in matrix remodelling, angiogenesis and stimulation of tumor growth and motility through the synthesis of growth and chemotactic factors. Interestingly, these functions are also normally found in wound healing or pathol. during chronic inflammation. This supports the notion that turnouts are 'wounds that never heal' and suggests that chronic inflammation through persistent infection or by other means might be an important cofactor in the genesis and promotion of tumors. Macrophages might therefore be important targets for cancer therapies.

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

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ANSWER 15 OF 31 CAPLUS COPYRIGHT 2006 ACS on STN
L2
AN
     2005:334662 CAPLUS
DN
     143:110109
ΤI
     M-CSF and GM-CSF induce human monocytes to express
     either pro- or anti-angiogenic factors
AU
     Eubank, Timothy D.
     Ohio State Univ., Columbus, OH, USA
CS
SO
     (2003) 188 pp. Avail.: UMI, Order No. DA3124980
     From: Diss. Abstr. Int., B 2004, 65(3), 1231
DT
     Dissertation
     English
LΑ
AB
     Unavailable
     ANSWER 16 OF 31 CAPLUS COPYRIGHT 2006 ACS on STN
L2
     2003:570854 CAPLUS
AN
DN
TТ
     Combination products for use in antitumoral treatment
TN
     Balloul, Jean-marc; Scholl, Suzy; Lacoste, Jerome
PA
     Transgene, Fr.; Institut Curie
SO
     PCT Int. Appl., 34 pp.
     CODEN: PIXXD2
DT
     Patent
LA
     French
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            AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
             PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ,
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         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
             KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,
             FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF,
             BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
     CA 2473570
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     AU 2003216778
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     EP 1463757
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                                20041006
                                           EP 2003-712203
                                                                   20030103
             AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
     JP 2005525314
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                                20050825
                                          JP 2003-559555
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     US 2005245471
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                                20051103
                                            US 2005-500709
                                                                   20050517
PRAI FR 2002-29
                          Α
                                20020103
     WO 2003-FR7
                          W
                                20030103
     The invention concerns combination products comprising (i) at least a
AB
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substance capable of inhibiting CSF-1 activity and/or

substance capable of inhibiting CSF-1 activity and

at least a nucleic acid, comprising at least a sequence coding for a

- (ii) at least a substance having a cytotoxic activity and/or at least a nucleic acid, comprising at least a sequence coding for a substance having cytotoxic activity. The invention also concerns oligonucleotides capable of inhibiting CSF-1 expression. The invention is particularly useful for implementing an antitumoral treatment.
- L2 ANSWER 17 OF 31 CAPLUS COPYRIGHT 2006 ACS on STN
- AN 2003:323276 CAPLUS
- DN 139:95574
- Recruitment and activation of phospholipase $C\gamma 1$ by vascular endothelial growth factor receptor-2 are required for tubulogenesis and differentiation of endothelial cells
- AU Meyer, Rosana D.; Latz, Catharina; Rahimi, Nader
- CS Departments of Ophthalmology and Biochemistry, Boston University School of Medicine, Boston, MA, 02118, USA
- SO Journal of Biological Chemistry (2003), 278(18), 16347-16355 CODEN: JBCHA3; ISSN: 0021-9258
- PB American Society for Biochemistry and Molecular Biology
- DT Journal
- LA English
- Vascular endothelial growth factor-mediated angiogenic signal transduction AB relay is achieved by coordinated induction of endothelial cell proliferation, migration, and differentiation. These complex cellular processes are most likely controlled by activation of both cooperative and antagonistic signals by vascular endothelial growth factor receptors (VEGFRs). Here, the authors investigated the contribution of tyrosine-phosphorylated residues of VEGFR-2/fetal liver kinase-1 to endothelial cell proliferation and differentiation and activation of signaling proteins. Mutation of tyrosine 1006 of VEGFR-2 to phenylalanine severely impaired the ability of this receptor to stimulate endothelial cell differentiation and tubulogenesis. Paradoxically, the mutant receptor stimulated endothelial cell proliferation far better than the wild-type receptor. Further anal. showed that tyrosine 1006 is responsible for phospholipase Cyl (PLCyl) activation and intracellular calcium release in endothelial cells. Activation of PLCyl was selectively mediated by tyrosine 1006. Mutation of tyrosines 799, 820, 949, 994, 1080, 1173, and 1221 had no measurable effect on the ability of VEGFR-2 to stimulate PLCyl activation. Association of VEGFR-2 with PLC \u03c4l was mainly established between tyrosine 1006 and the C-terminal SH2 domain of PLCγ1 in vitro and in Taken together, the results indicate that phosphorylation of tyrosine 1006 is essential for VEGFR-2-mediated PLCγ1 activation, calcium flux, and cell differentiation. More importantly, VEGFR-2-mediated endothelial cell proliferation is inversely correlated with the ability of VEGFR-2 to associate with and activate PLCγ1.
- RE.CNT 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT
- L2 ANSWER 18 OF 31 CAPLUS COPYRIGHT 2006 ACS on STN
- AN 2002:902261 CAPLUS
- DN 138:4517
- TI Preparation of 3-heteroarylmethylidene-2-indolinone protein kinase inhibitors for use against cancer and other disorders
- IN McMahon, Gerald; Tang, Peng Cho; Sun, Li
- PA Sugen, Inc., USA
- SO U.S., 64 pp., Cont.-in-part of U.S. Ser. No. 74,621. CODEN: USXXAM
- DT Patent
- LA English
- FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6486185	B1	20021126	US 1998-191458	19981112
	US 6316429	B1	20011113	US 1998-74621	19980507

	US 2002156083	A1	20021024	US 2001-819698	20010329
	US 6683082	B2	20040127		
	US 2004106630	A1	20040603	US 2003-725079	20031202
	US 2004106618	A1	20040603	US 2003-725267	20031202
PRAI	US 1997-45838P	P	19970507		
	US 1997-59677P	P	19970919		
	US 1998-74621	A2	19980507		
	US 2001-819698	A 3	20010329		
os	MARPAT 138:4517				
GI					

The present invention relates to novel 3-heteroarylidene-2-indolinone AB compds. (shown as I; e.g. 3-[3-(2-carboxyethyl)-4-methylpyrrol-2methylidene] - 2 - indolinone) and physiol. acceptable salts thereof which modulate the activity of protein kinases and therefore are expected to be useful in the prevention and treatment of protein kinase related cellular disorders such as cancer. In I: A, B, D and E = C and N, it being understood that the N-containing 9-member bicyclic ring formed is one known in the chemical arts; it being further understood that when A, B, D, or E is N, R3, R4, R5 or R6, resp., does not exist. R1 = H, alkyl, cycloalkyl, aryl, hydroxy, alkoxy, carboxy, C-amido and sulfonyl; R2 = H, alkyl, cycloalkyl, aryl, heteroaryl, and heteroalicyclic; R3, R4, R5 and R6 = H, alkyl, trihaloalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heteroaryl, heteroalicyclic, hydroxy, alkoxy, aryloxy, -SH, -S-alkyl, -S-cycloalkyl, -S-aryl, -S-heteroaryl, sulfinyl, sulfonyl, sulfonamido, carbonyl, carboxy, cyano, nitro, halo, -OC(O)NR10R11, N-carbamyl, -OC(S)NR10R11, N-thiocarbamyl, C-amido, N-amido, amino and -NR10R11; R10 and R11 = H, alkyl, cycloalkyl, aryl, carbonyl, sulfonyl and, combined, a five- or six-member heteroalicyclic ring containing at least one N; R3 and R4, R4 and R5, or R4 and R5 may combine to form a six-member aryl or heteroaryl ring. Q is a heteroaryl group II in which J = O, N and S; K, L and M = C, N, O and S such that the five-member heteroaryl ring formed is one known in the chemical arts, it being understood that when K, L and M are N, S or O, R8 or -(alk1)nZ cannot be covalently bonded to that atom; when J is N, R7 = H, alkyl, cycloalkyl, aryl, hydroxy, alkoxy, aryloxy, carbonyl, carboxy, C-amido, quanyl and sulfonyl and when J is O or S, R7 does not exist and there is no bond; R8 = H, alkyl, trihaloalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heteroaryl, heteroalicyclic, hydroxy, alkoxy, aryloxy, -SH, -S-alkyl, -S-cycloalkyl, -S-aryl, -S-heteroaryl, sulfinyl, sulfonyl, sulfonamido, carbonyl, carboxy, cyano, nitro, halo, -OC(0)NR10R11,

N-carbamyl, -OC(S)NR10R11, N-thiocarbamyl, C-amido, N-amido, amino, -NR10R11, trihalomethyl, a five member cycloalkyl, aryl, heteroaryl or heteroalicyclic ring fused to two adjacent atoms of the Q ring; and a six-member cycloalkyl, aryl, heteroaryl, or heteroalicyclic ring fused to two adjacent atoms of the Q ring. R10and R11 = H, alkyl, cycloalkyl, aryl, carbonyl, sulfonyl and, combined, a five- or six-member heteroalicyclic ring containing at least one N; alk1 = optionally substituted methylene (-CRR'-), optionally substituted ethylene (-C(R):C(R')-) and acetylene (-C.tplbond.C-); R and R' = H, alkyl, cycloalkyl, aryl, alkoxy, -S-alkyl, -S-cycloalkyl, aryloxy and halo. N is 0 to 10, inclusive with the proviso that when n is 0, R7 is not alkyl substituted with aryl; and Z is a polar group hydroxy, alkoxy, carboxy, nitro, cyano, carbamyl, amino, quaternary ammonium, amido, ureido, sulfonamido, sulfinyl, sulfonyl, phosphono, phosphonyl, morpholino, piperazinyl and tetrazolo. claimed are a combinatorial library of ≥13 I and a method for synthesizing I comprising the step of reacting III with a 2nd reactant IV \cdot in a solvent and in the presence of a base at elevated temps. The IC50 results for 12 I for PDGFR, FLK-1R, EGFR, HER2 and IGF-1R protein tyrosine kinases (PTKs) are presented; IC50 refers to that amount of the tested compound needed to effect a 50% inhibition of PTK activity in the test indicated with respect to a control in which no compound of this invention is present. Thus, 3-(2,4-dimethyl-3-ethoxycarbonylpyrrol-5-methylidenyl)-2-indolinone inhibited FLK-IR kinase with IC50 = 0.07 μ M.

THERE ARE 211 CITED REFERENCES AVAILABLE FOR THIS RECORD RE.CNT 211 ALL CITATIONS AVAILABLE IN THE RE FORMAT

- ANSWER 19 OF 31 CAPLUS COPYRIGHT 2006 ACS on STN L2
- 2002:728436 CAPLUS AN
- DN 138:19904
- Colony-stimulating factor-1 antisense treatment suppresses growth of human ΤI tumor xenografts in mice
- Aharinejad, Seyedhossein; Abraham, Dietmar; Paulus, Patrick; Abri, AU Hojatollah; Hofmann, Michael; Grossschmidt, Karl; Schafer, Romana; Stanley, E. Richard; Hofbauer, Reinhold
- Laboratory for Cardiovascular Research, Department of Anatomy, University CS of Vienna, Vienna, A-1090, Austria
- Cancer Research (2002), 62(18), 5317-5324 SO CODEN: CNREA8; ISSN: 0008-5472
- American Association for Cancer Research PB
- DTJournal
- LA English
- Matrix metalloproteinases (MMPs) foster cellular invasion by disrupting AB extracellular matrix barriers and thereby facilitate tumor development. MMPs are synthesized by both cancer cells and adjacent stromal cells, primarily macrophages. The production of macrophages is regulated by colony-stimulating factor-1 (CSF-1). Tissue CSF-1 expression increased significantly in embryonic and colon cancer xenografts. We, therefore, hypothesized that blocking CSF-1 may suppress tumor growth by decelerating macrophage-mediated extracellular matrix breakdown. Cells expressing CSF-1 and mice xenografted with CSF-1 receptor (c-fms) - and CSF-1-neg. malignant human embryonic or colon cancer cells were treated with mouse CSF-1 antisense oligonucleotides. Two weeks of CSF-1 antisense treatment selectively down-regulated CSF-1 mRNA and protein tissue expression in tumor lysates. CSF-1 blockade suppressed the growth of embryonic tumors to dormant levels and the growth of the colon carcinoma by 50%. In addition, tumor vascularity and the expression of MMP-2 and angiogenic factors were reduced. Six-month survival was observed in colon carcinoma mice only after CSF-1 blockade, whereas controls were all dead at day

These results suggest that human embryonic and colon cancer cells

up-regulate host CSF-1 and MMP-2 expression. Because

the cancer cells used were CSF-1 neg., CSF-

1 antisense targeted tumor stromal cell CSF-1 production CSF-1 blockade could be a novel strategy in treatment of solid tumors.

THERE ARE 50 CITED REFERENCES AVAILABLE FOR THIS RECORD RE.CNT 50 ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 20 OF 31 CAPLUS COPYRIGHT 2006 ACS on STN L2

2001:830898 CAPLUS AN

135:357926 DN

Synthesis of indolinone vinyl-derivatives used to modulate protein kinase ΤI activity

Tang, Peng Cho; Sun, Li; Mcmahon, Gerald; Harris, G. David IN

PΑ Sugen, Inc., USA

U.S., 29 pp., Cont.-in-part of U.S. Ser. No. 212,494. SO CODEN: USXXAM

DTPatent

English LA

GI

FAN.	CNT 12						
	PATENT NO.		DATE	APPLICATION NO.	DATE		
ΡI	US 6316635		20011113	US 1999-293518	19990415		
	US 5880141	Α	19990309	US 1995-485323	19950607		
	US 5792783	A	19980811	US 1996-655223	19960605		
	US 5883113			US 1996-659191	19960605		
	EP 934931			EP 1999-103667	19960605		
	EP 934931	A3	19991020				
	R: AT, BE, CH,	DE, DK	, ES, FR, GE	B, GR, IT, LI, LU, NL,	SE, MC, PT,		
	IE, SI, LT,	LV, FI					
	JP 2000026412	A2	20000125	JP 1999-159567	19960605		
	US 6225335		20010501	US 1998-212494	19981215		
	US 2001027207	A1	20011004	US 2001-765619	20010122		
	US 6469032	B2	20021022				
	US 2002028840	A1	20020307	US 2001-899550	20010706		
	US 6569868	B2	20030527				
	US 2003191128	A1	20031009	US 2003-372341	20030225		
PRAI	US 1995-485323	A2	19950607				
	US 1996-655223	A2	19960605				
	US 1996-659191	A1	19960605				
	US 1998-82056P	P	19980416				
	US 1998-212494	A2	19981215				
	EP 1996-918093	A3	19960605				
	JP 1997-501363	A3	19960605				
	US 1999-293518	A1	19990415				
	US 2001-899550	A3	20010706				
os	MARPAT 135:357926						

Title compds. I [G, J = N such that, when G = N, J = C and when J = N, G = C, it being recognized that, when G or J = N, R5 or R5' does not exist; R1-3 = H; R4, R5, R5' H, alk(en/yn)yl, cycloalkyl, aryl, heteroaryl, heteroalicylic, halo, hydroxy, nitro, cyano, alkoxy, aryloxy, etc.; R6-9 = H, alkyl, trihaloalkyl, cycloalkyl, alkenyl, alkynyl, aryl, heteroaryl, heteroalicyclic, hydroxy, alkoxy, aryloxy, thiohydroxy, thioalkoxy, thioaryloxy, etc.] with some exceptions, were prepared For instance, 2-ethyl-4-formylimidazole was reacted with resin bound 2-chlorotriphenylmethyl chloride (CH2Cl2, iPr2NEt, 21 h, room temperature) and the isolated product condensed with 2-indolinone (DMF, piperidine, 80°C, 20 h) to give the corresponding resin-bound 2-indolinone. The resin bound intermediate was cleaved (CH2Cl2, TFA, 2 h, room temperature)

give II as the TFA salt of a 10:1~E/Z mixture I exhibit kinase inhibitory activity and are useful for treating, e.g., diabetes, autoimmune disorder, etc.

RE.CNT 85 THERE ARE 85 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

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L2 ANSWER 21 OF 31 CAPLUS COPYRIGHT 2006 ACS on STN
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Ι

AN 2000:725746 CAPLUS

DN 133:276345

to

TI Pharmaceutical compositions comprising monocytes and uses for the modulation of neovascularization and/or growth of collateral arteries

IN Buschmann, Ivo; Schaper, Wolfgang

PA Max-Planck-Gesellschaft zur Forderung der Wissenschaften e.V., Germany

SO PCT Int. Appl., 36 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

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	PATENT NO.			KIND DATE		4	APPLICATION NO.					DATE							
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ΡI	WO	2000	0600	54		A1		2000	1012	1	WO 2	000-1	EP30	37		2	0000	106	
		W:	ΑE,	AG,	AL,	AM,	AT,	AU,	ΑZ,	BA,	BB,	BG,	BR,	BY,	CA,	CH,	CN,	CR,	
			CU,	CZ,	DE,	DK,	DM,	DZ,	EE,	ES,	FI,	GB,	GD,	GE,	GH,	GM,	HR,	HU,	
			ID,	IL,	IN,	IS,	JP,	KΕ,	KG,	ΚP,	KR,	ΚZ,	LC,	LK,	LR,	LS,	LT,	LU,	
			LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	NO,	NZ,	PL,	PT,	RO,	RU,	SD,	SE,	
			SG,	SI,	SK,	SL,	TJ,	TM,	TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VN,	YU,	ZA,	zw

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RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
             PT, SE
                                20020102
                                           EP 2000-926832
    EP 1165754
                          A1
             AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO
                      A
PRAI EP 1999-106800
                                19990406
    WO 2000-EP3087
                         W
                                20000406
    The present invention relates to a (pharmaceutical) composition comprising a
     circulating blood cell, preferably a monocyte loaded with a
     therapeutically active mol. and, optionally, a pharmaceutically acceptable
     carrier and/or diluent. Furthermore, the present invention relates to the
     use of a circulating blood cell, preferably a monocyte loaded with a
     therapeutically active mol. for the preparation of a (pharmaceutical)
composition
     for enhancing collateral growth of collateral arteries and/or arteries
     from pre-existing arteriolar connections and/or preventing and/or treating
     an occlusive disease. The present invention also relates to a method for
     enhancing collateral growth of collateral arteries and/or arteries from
     pre-existing arteriolar connections, and/or preventing and/or treating an
     occlusive disease, said method comprising administering to a subject in
     need thereof an effective amount of circulating blood cells, preferably
     monocytes loaded with a therapeutically active mol. Also described are
     (pharmaceutical) kits, diagnostic compns., their preparation and use as well as
     diagnostic methods.
RE.CNT 8
              THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD
              ALL CITATIONS AVAILABLE IN THE RE FORMAT
     ANSWER 22 OF 31 CAPLUS COPYRIGHT 2006 ACS on STN
T<sub>1</sub>2
ΑN
     2000:573686 CAPLUS
     133:176175
DN
     Methods for treatment of tumors and metastases using a combination of
TT
     anti-angiogenic and immunotherapies
     Lode, Holger N.; Reisfeld, Ralph A.; Cheresh, David A.; Gillies, Stephen
IN
     The Scripps Research Institute, USA; Lexigen Pharmaceuticals Corporation
PΑ
     PCT Int. Appl., 78 pp.
SO
     CODEN: PIXXD2
DT
     Patent
     English
LA
FAN.CNT 1
     PATENT NO.
                         KIND
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                               20000817 WO 2000-US3483
PΙ
     WO 2000047228
                         A1
                                                                   20000211
         W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU,
             CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL,
             IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA,
             MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI,
             SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW
         RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,
             DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,
             CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
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                                20000817
                                            CA 2000-2360106
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     CA 2360106
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                                            AU 2000-32280
                                                                    20000211
     AU 2000032280
                          Α5
                                20040923
     AU 776790
                          B2
     EP 1156823
                          A1
                                20011128
                                            EP 2000-910138
                                                                    20000211
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             IE, SI, LT, LV, FI, RO
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     BR 2000008161
                         Α
                                20020528
                                            BR 2000-8161
                         T2
                                20021029
                                            JP 2000-598179
                                                                    20000211
     JP 2002536419
                                                                   20000211
                         C2
                                20040920
                                            RU 2001-124907
     RU 2236251
ZA 2001006455 A 20021106

NO 2001003906 A 20011009

PRAI US 1999-119721P P 19990212

WO 2000-US3483 W 20000211
                                                                   20010806
                                            ZA 2001-6455
                                            NO 2001-3906
                                                                   20010810
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- AB The invention teaches methods for treating tumors and tumor metastases in a mammal comprising administering, to a mammal in need of treatment, a therapeutic amount of an antagonist sufficient to inhibit angiogenesis in combination with a therapeutic amount of anti-tumor immunotherapeutic agent, such as an anti-tumor antigen antibody/cytokine fusion protein having a cytokine and a recombinant Ig polypeptide chain sufficient to elicit a cytokine-specific biol. response.
- RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT
- L2 ANSWER 23 OF 31 CAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 3
- AN 2000:394533 CAPLUS
- DN 133:100037
- TI Receptor chimeras indicate that the vascular endothelial growth factor receptor-1 (VEGFR-1) modulates mitogenic activity of VEGFR-2 in endothelial cells
- AU Rahimi, Nader; Dayanir, Volkan; Lashkari, Kameran
- CS School of Medicine, Departments of Ophthalmology & Biochemistry, Boston University, Boston, MA, 02118, USA
- SO Journal of Biological Chemistry (2000), 275(22), 16986-16992 CODEN: JBCHA3; ISSN: 0021-9258
- PB American Society for Biochemistry and Molecular Biology
- DT Journal
- LA English
- Vascular endothelial growth factor (VEGF) provokes angiogenesis AB in vivo and stimulates growth and differentiation of endothelial cells in vitro. Although VEGF receptor-1 (VEGFR-1) and VEGFR-2 are known to be high affinity receptors for VEGF, it is not clear which of the VEGFRs are responsible for the transmission of the diverse biol. responses of VEGF. For this purpose we have constructed a chimeric receptor for VEGFR-1 (CTR) and VEGFR-2 (CKR) in which the extracellular domain of each receptor was replaced with the extracellular domain of human colony-stimulating factor-1 receptor (CSF-1R), and these receptors were expressed in pig aortic endothelial (PAE) cells. We show that CKR individually expressed in PAE cells is readily tyrosine-phosphorylated in vivo, autophosphorylated in vitro, and stimulates cell proliferation in a CSF-1-dependent manner. In contrast, CTR individually expressed in PAE cells showed no significant in vivo, in vitro tyrosine phosphorylation and cell growth in response to CSF-1 stimulation. The kinase activity of CKR was essential for its biol. activity, since mutation of lysine 866 to arginine abolished its in vivo, in vitro tyrosine phosphorylation and mitogenic signals. Remarkably, activation of CTR repressed CKR-mediated mitogen-activated protein kinase activation and cell proliferation. Similar effects were observed for VEGFR-2 co-expressed with VEGFR-1. Collectively, these findings demonstrate that VEGFR-2 activation plays a pos. role in angiogenesis by promoting endothelial cell proliferation. In contrast, activation of VEGFR-1 plays a stationary role in angiogenesis by antagonizing VEGFR-2 responses.
- RE.CNT 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT
- L2 ANSWER 24 OF 31 CAPLUS COPYRIGHT 2006 ACS on STN
- AN 2000:710096 CAPLUS
- DN 134:278645
- TI Human breast cancer cells induce **angiogenesis**, recruitment, and activation of osteoclasts in osteolytic metastasis
- AU Winding, Bent; Misander, Henriette; Sveigaard, Christina; Therkildsen, Bente; Jakobsen, Maria; Overgaard, Trine; Oursler, Merry Jo; Foged, Niels Taekker
- CS OsteoPro A/S, Cancer and Bone Group, Center for Clinical and Basic Research, Ballerup, 2750, Den.
- SO Journal of Cancer Research and Clinical Oncology (2000), 126(11), 631-640 CODEN: JCROD7; ISSN: 0171-5216

- PB Springer-Verlag
- DT Journal
- LA English
- Purpose: The purpose of this study was to elucidate the potential of human ΔR breast cancer cells (BCC) to induce matrix degradation and neo-vascularization, essential for continued tumor growth, in osteolytic lesions. Methods: BCC were inoculated into the left cardiac ventricle of female athymic mice and osteolytic lesions were radiol. visualized within 4 wk from inoculation. Results: Histomorphometric anal. of bone sections revealed a significant increase in the number and maturity of osteoclasts (OC1) lining the bone surfaces next to tumor tissue when compared to corresponding bone surfaces in healthy mice. In addition, a large number of newly formed blood vessels could be visualized by immunohistochem. at the periphery of and within tumor tissue. When bone marrow (BM) cells were cultured in the presence of BCC the OCl formation was increased threefold. These OCl were also found to be more mature and to have greater resorptive activity. Moreover, BCC were found to stimulate proliferation, migration, and differentiation of BM-derived endothelial cells. Conclusions: Matrix destruction and neo-vascularization are accomplished by BCC arrested in the BM cavity by increasing recruitment and activity of OCl and by induction of angiogenesis within or in proximity to the tumor tissue.
- RE.CNT 53 THERE ARE 53 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT
- L2 ANSWER 25 OF 31 CAPLUS COPYRIGHT 2006 ACS on STN
- AN 1999:170484 CAPLUS
- DN 131:3846
- TI Auditory ossicle abnormalities and hearing loss in the toothless (osteopetrotic) mutation in the rat and their improvement after treatment with colony-stimulating factor-1
- AU Aharinejad, S.; Grossschmidt, K.; Franz, P.; Streicher, J.; Nourani, F.; Mackay, C. A.; Firbas, W.; Plenk, H., Jr.; Marks, S. C., Jr.
- CS Department of Anatomy, University of Vienna, Vienna, Austria
- SO Journal of Bone and Mineral Research (1999), 14(3), 415-423 CODEN: JBMREJ; ISSN: 0884-0431
- PB Blackwell Science, Inc.
- DT Journal
- LA English
- AB Osteopetrosis describes a group of skeletal metabolic diseases of heterogeneous etiol. and varied severity that produces a generalized accumulation of skeletal mass, the result of reduced bone resorption. Inherited in a variety of species including humans, the most severe forms are lethal. Among common features are progressive blindness and deafness of controversial etiologies for which there are no universally effective treatments. We have studied the auditory responsiveness and auditory ossicle quant. histomorphol. and temporal bone vasculature in the toothless (tl) rat, a lethal osteopetrotic mutation with few osteoclasts, very low bone turnover, and limited angiogenesis in the axial skeleton. Compared with normal littermates, 3-wk-old mutants showed significantly reduced auditory responsiveness, a hearing loss due to abnormalities in both form and tissue composition of the stapes, and little capillary sprouting in the vascular bed of the temporal bone. Treatment of mutants with colony-stimulating factor 1 (CSF-1), known to greatly reduce sclerosis in the axial skeleton, significantly improved hearing, stapedial form and tissue composition, and angiogenesis in the temporal bone. In normal rats, the stapes consisted of 89.3% bone, 9.1% mineralized cartilage, and 0.8% porosity. In osteopetrotic rats, the stapes consisted of 48.3% bone, 35.9% mineralized cartilage, and 15.9% porosity, while after CSF-1 treatment, the bone content increased to 55.2%, cartilage was decreased to 21.7%, and porosity increased to 23.0%, resp. This is the first demonstration of an auditory abnormality in an osteopetrotic animal mutation and shows that the hearing loss in tl rats can be significantly

improved following treatment with CSF-1.

RE.CNT 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

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ANSWER 26 OF 31 CAPLUS COPYRIGHT 2006 ACS on STN
L2
    1998:747592 CAPLUS
AN
DN
    130:3771
    Preparation of 3-(hetero)arylmethylidene-2-indolinone derivatives as
TI
    modulators of protein kinase activity for use in treating cancer.
    Tang, Peng Cho; Sun, Li; McMahon, Gerald; Shawver, Laura Kay; Hirth, Klaus
IN
PΑ
    Sugen, Inc., USA
SO
    PCT Int. Appl., 269 pp.
    CODEN: PIXXD2
DT
    Patent
LΑ
    English
FAN.CNT 4
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                              DATE
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    PATENT NO.
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                              19981112 WO 1998-US9017
    WO 9850356
PΙ
                        A1
                                                               19980507
        W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,
            DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG,
            KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX,
            NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT,
            UA, UG, UZ, VN, YU, ZW
        RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES,
            FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI,
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    CA 2289102
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    AU 9876842
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                                          AU 1998-76842
                                                                19980507
    EP 984930
                                          EP 1998-924746
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        R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
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                              20050415
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    ES 2239393
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                                          US 1998-100854
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                              20001017
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                                          US 2000-516948
    US 2001007033
                       A1 20010705
                                                                20000301
    US 2002026053
                       A1
                            20020228
                                          US 2001-916331
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                       B2
    US 6506763
                              20030114
    US 2002058661
                       A1
                              20020516
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                       B2
    US 6696463
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US 1998-161046	A3	19980925
US 2000-482198	A3	20000112
US 2000-516948	B1	20000301
US 2001-819698	A3	20010329
MARPAT 130:3771		

Ι

OS GI

$$\begin{array}{c|c}
R^{3} & R^{2} \\
R^{4} & A^{2} & A^{1} \\
\downarrow & & & \\
R^{5} & A^{3} & & \\
\downarrow & & & \\
R^{6} & & & \\
\end{array}$$

Title compds. [I; A1-A4 = C, N; when any of A1-A4 = N, then the corresponding R3-R6 = null; R1 = H, alkyl, cycloalkyl, alkenyl, alkynyl, aryl, heteroaryl, heteroalicyclyl, trihalomethylcarbonyl, OH, CO2H, trihalomethylsulfonyl, etc.; R2 = H, alkyl, cycloalkyl, aryl, heteroaryl, heteroalicyclyl, halo; R3-R6 = H, alkyl, trihalomethyl, cycloalkyl, alkenyl, alkynyl, aryl, heteroaryl, heteroalicyclyl, OH, SH, alkoxy, aryloxy, amino, phosphonyl, guanidinyl, NO2, halo, (iso)cyanato, etc.; R3R4 or R4R5 or R5R6 = cycloalkyl, aryl, heteroaryl, heteroalicyclyl, OCH2O, OCH2CH2O; Q = specified (substituted) (hetero)aryl; Z = O, S], were prepared Thus, 3-(4-imidazolylmethylidenyl)-4,6-dimethyl-2-indolinone inhibited CDK2 with IC50 = <0.78 μM.

RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

- L2 ANSWER 27 OF 31 BIOTECHNO COPYRIGHT 2006 Elsevier Science B.V. on STN DUPLICATE
- AN 1998:28387938 BIOTECHNO
- TI Angiostatin-mediated suppression of cancer metastases by primary neoplasms engineered to produce granulocyte/macrophage colony-stimulating factor
- AU Dong Z.; Yoneda J.; Kumar R.; Fidler I.J.
- CS Z. Dong, Department of Cell Biology, Box 173, Texas Univ. M.D. Anderson Can. Ctr., 1515 Holcombe Blvd., Houston, TX 77030, United States. E-mail: zdong@notes.mdacc.tmc.edu
- SO Journal of Experimental Medicine, (17 AUG 1998), 188/4 (755-763), 41 reference(s)
 - CODEN: JEMEAV ISSN: 0022-1007
- DT Journal; Article
- CY United States
- LA English
- SL English
- We determined whether tumor cells consistently generating granulocyte/macrophage colony-stimulating factor (GM-CSF) can recruit and activate macrophages to generate angiostatin and, hence, inhibit the growth of distant metastasis. Two murine melanoma lines, B16-F10 (syngeneic to C57BL/6 mice) and K-1735 (syngeneic to C3H/HeN mice), were engineered to produce GM-CSF. High GM-CSF (>1 ng/10.sup.6 cells)- and low GM-CSF (<10 pg/10.sup.6 cells)-producing clones were identified. Parental, low, and high GM-CSF- producing cells were injected subcutaneously into syngeneic and into nude mice. Parental

and low-producing cells produced rapidly growing tumors, whereas the high-producing cells produced slow-growing tumors. Macrophage density inversely correlated with tumorigenicity and directly correlated with steady state levels of macrophage metalloelastase (MME) mRNA. B16 and K-1735 subcutaneous (s.c.) tumors producing high levels of GM-CSF significantly suppressed lung metastasis of 3LL, UV-2237 fibrosarcoma, K-1735 M2, and B16- F10 cells, but parental or low-producing tumors did not. The level of angiostatin in the serum directly correlated with the production of GM-CSF by the s.c. tumors. Macrophages incubated with medium conditioned by GM-CSF- producing B16 or K-1735 cells had higher MME activity and generated fourfold more angiostatin than control counterparts. These data provide direct evidence that GM-CSF released from a primary tumor can upregulate angiostatin production and suppress growth of metastases.

- L2 ANSWER 28 OF 31 CAPLUS COPYRIGHT 2006 ACS on STN
- AN 1995:485305 CAPLUS
- DN 122:256961
- TI **CSF-1** treatment promotes **angiogenesis** in the metaphysis of osteopetrotic (toothless, tl) rats
- AU Aharinejad, S.; Marks, S. C.; Boeck, P.; Mason-Savas, A.; MacKay, C. A.; Larson, E. K.; Jackson, M. E.; Luftensteiner, M.; Wiesbauer, E.
- CS First Department of Anatomy, University of Vienna, Vienna, A-1090, Austria
- SO Bone (New York, NY, United States) (1995), 16(3), 315-24 CODEN: BONEDL; ISSN: 8756-3282
- DT Journal
- LA English
- It has recently been shown that following treatment with AB colony-stimulating factor-1 (CSF-1) the osteopetrotic condition in toothless (tl) rats greatly improves and growth is accelerated. We have examined the effects of such treatment on the microvasculature of the distal femoral chondro-osseous junction, a site where bone growth in length is coordinated with angiogenesis. Vascular casts and ultrastructural analyses of this region showed that, compared to untreated normal rats, untreated mutants showed little bone growth or angiogenesis. When mutants were treated with CSF-1 angiogenesis was markedly accelerated. These data show a remarkable effect of this growth factor on angiogenesis in this osteopetrotic mutation. Whether this effect of CSF-1 on angiogenesis is direct or indirect is not known and indicates that its effects on the normal microvasculature deserve further study.
- L2 ANSWER 29 OF 31 CAPLUS COPYRIGHT 2006 ACS on STN
- AN 1995:563759 CAPLUS
- DN 123:30905
- TI In vitro neutralization of vascular endothelial growth factor activation of flk-1 by a monoclonal antibody
- AU Rockwell, Patricia; Neufeld, Gera; Glassman, Allison; Caron, Dan; Goldstein, Neil
- CS Department Immunology, ImClone Systems Inc., New York, NY, 10014, USA
- SO Molecular and Cellular Differentiation (1995), 3(1), 91-109 CODEN: MCDIEL; ISSN: 1065-3074
- DT Journal
- LA English
- AB Vascular endothelial growth factor (VEGF) is a highly specific regulator of angiogenesis that mediates its mitogenic response through its cognate receptor flk-1. Flk-1 is an endothelial-specific receptor that functions as a regulator of vascular endothelial cell development and differentiation during embryogenesis and solid tumor formation. A number of studies have provided evidence that VEGF plays a major role in the regulation of physiol. and tumor angiogenesis. This work presents an in vitro characterization of an anti-flk-1 monoclonal antibody that neutralizes VEGF stimulation of a chimeric flk-1/fms receptor

expressed in transfected 3T3 cells. DC101 competes with VEGF to reduce receptor phosphorylation and abrogates activation when the MAb is preincubated with cells prior to the addition of ligand. The MAb binds to flk-1/fms-expressing cells with a binding affinity of 3.12 nM. The specificity of MAb reactivity is shown by the neutralization and immunopptn. (IP) of activated flk-1/fms from VEGF-stimulated cells and by the lack of inhibition of CSF-1 activation of the fms receptor. MAb reactivity with human flk-1 receptor forms is shown by an IP of phosphorylation bands from VEGF-stimulated human umbilical vein endothelial (HUVEC) cells. Results of proliferation assays show that the MAb exerts an inhibitory effect on the VEGF-induced growth of HUVEC cells. The results of the studies showing the inhibitory effects of MAb on flk-1 phosphorylation and endothelial cell growth suggest that the antibody may have biol. relevance for the use of anti-receptor MAbs in blocking VEGF receptor interactions.

- L2 ANSWER 30 OF 31 Elsevier BIOBASE COPYRIGHT 2006 Elsevier Science B.V. on STN
- AN 1995017404 ESBIOBASE
- TI Oncogenes, growth factors and suppressor genes and their prognostic relevance in ovarian carcinoma
 ONKOGENE, WACHSTUMSFAKTOREN UND SUPPRESSORGENE BEIM OVARIALKARZINOM UND IHRE PROGNOSTISCHE BEDEUTUNG
- AU Bauknecht T.; Kiechle-Schwarz M.; Brandstetter T.
- CS Dr. T. Bauknecht, Universitats-Frauenklinik, Hugstetter Str. 55, D-79106 Freiburg, Germany.
- SO Klinisches Labor, (1994), 40/12 (1215-1226) CODEN: KLLAEA ISSN: 0941-2131
- DT Journal; General Review
- CY Germany, Federal Republic of
- LA German
- SL German; English
- Studies on the molecular biology of ovarian carcinomas suggest that AB products of tumor suppressor genes (TGS) and oncogenes as p53, the receptors of growth factors (cytokines) and the final control elements of mitogenic signal chains can control tumor growth and neoangiogenesis but also the sensitivity and resistance to cytostatic agents, thus having a great influence on the prognosis of these carcinomas. One of the best characterized growth factor/oncogene signal pathways is the TGF-alpha/EGF (EGF-R) system. Via second messenger, TGF-alpha can induce nuclear transcription factors (Jun, Fos, Myc) which transactivate the expression of important tumor biologic genes, such as repair genes (thymidine synthase, topiosomerases, etc.), RNA polymerase, resistance genes (metallothionein MT , mdr-1) and angiogenetic factors (vascular endothelial growth factor VEGF). Other growth factor/cytokine/receptor systems that are frequently altered in ovarian carcinomas are CSF -1/CSF-1 R, FGF, and the oncogenes Her-2, ras, c-myc, Act 2. In addition to the CSF-1 signal, other hematopoietically effective cytokines (IL-1a, IL-1b, IL-3, IL-6, GM-CSF, CSF-1 and TGF-alpha) can likewise be biologically active in ovarian carcinomas. Tumor genetic techniques (cytogenetics, molecular genetics) can reveal losses of genetic material and specific chromosomal aberrations (chromosomes 11p, 17p, 17q, 19p + etc.). A possible causal connection for the great variety of genetic alterations is to be seen in the demonstration of nucleotide mismatch repair enzyme defects, which result in genetic instability. This can promote the accumulation of genetic alterations which leads to changes in the function of oncogenes, growth factor receptor systems and TSG. The findings regarding the clinical relevance of oncogene/TSG alterations in ovarian carcinomas are controversial. Future studies will have to show to what extent the analysis of these gene groups can be helpful in distinguishing different entities of ovarian carcinoma, and whether clinically relevant tumor characteristics such as development of resistance, tumor growth, angiogenesis and metastasis are

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caused by alterations in the function of these genes.
     ANSWER 31 OF 31 BIOTECHNO COPYRIGHT 2006 Elsevier Science B.V. on STN
L2
     DUPLICATE
     1994:24030673
                    BIOTECHNO
AN
     Growth factors and growth modulators in human uterine endometrium: Their
TI
     potential relevance to reproductive medicine
ΑU
     Giudice L.C.
     Div. of Reproductive Endocrinology, Department of Gynecology/Obstetrics,
CS
     Stanford University Medical Center, Stanford, CA 94305-5317, United
     Fertility and Sterility, (1994), 61/1 (1-17)
SO
     CODEN: FESTAS ISSN: 0015-0282
DT
     Journal; General Review
CY
     United States
LA
     English
SL
     English
     Objective: To provide an up-to-date, comprehensive review on the presence
AB
     and regulation of growth factors (GFs), GF receptors, and GF regulatory
     proteins in human endometrium in an effort to understand the potential
     roles of these proteins in endometrial cell mitosis and differentiation
     and in endometrial-trophoblast interactions. Design: Relevant studies
     were identified through a computerized bibliographic search (MEDLINE; BRS
      Information Technologies, a division of Maxwell Online, Inc., McLean, VA)
     and through manual scanning of recent relevant journals. Results: Several
     GFs, their receptors, and regulatory proteins have been identified in
     endometrium, and cellular localization and steroid-dependence of these
     proteins as well as action of several growth modulators on endometrial
     cell function have been studied. Epidermal growth factor, transforming
     growth factor (TGF)-\alpha, platelet-derived growth factor, insulin-like
     growth factors (IGFs) and their binding proteins, fibroblast growth
      factor (FGF), TGF-β, colony-stimulating factor ( CSF)-
      1, and interferon-y regulate mitosis of endometrial
      cellular components in vitro. Endothelin-1 may participate in
     vasoconstriction and FGF may participate in angiogenesis in
      this tissue in vivo. Interleukins-1 and - 6 are believed to be involved
      in endometrial T-cell activation, and TGF-\beta,
                                                    CSF-1
       the interleukins, and the IGFs likely mediate endometrial-trophoblast
      interactions. The role of tumor necrosis factor in endometrium remains
     uncertain. Conclusions: Current evidence supports the thesis that GFs
     play a central role in cyclic mitosis and differentiation of endometrial
      cellular components, recruitment of macrophages in decidualizing
      endometrium, endometrial-trophoblast interactions, early pregnancy
      maintenance, tissue shedding in the absence of implantation, and
      endometrial functionalis regeneration.
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     FILE 'CAPLUS, BIOENG, BIOTECHNO, BIOTECHDS, ESBIOBASE' ENTERED AT
     11:23:48 ON 20 APR 2006
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38 S (ANGIOGENESIS AND (CSF 1) OR (M CSF) AND (ANTI (N) ANGIOGENIC
Ll
             31 DUPLICATE REMOVE L1 (7 DUPLICATES REMOVED)
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           5100 S (GENE SPLICING) AND (CSF 1) OR (M CSF)
L3
L4
           5099 S (GENE SILENCING) AND (CSF 1) OR (M CSF)
           3113 DUPLICATE REMOVE L4 (1986 DUPLICATES REMOVED)
L5
L6
              4 S L2 AND L5
              4 DUPLICATE REMOVE L6 (0 DUPLICATES REMOVED)
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L7

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Logon file001 20apr06 10:03:03
          *** ANNOUNCEMENTS ***
NEW FILES RELEASED
***Regulatory Affairs Journals (File 183)
***Index Chemicus (File 302)
***Inspec (File 202)
RELOADS COMPLETED
***File 516, D&B--Dun's Market Identifiers
***File 523, D&B European Dun's Market Identifiers
***File 531, American Business Directory
*** MEDLINE has been reloaded with the 2006 MeSH (Files 154 & 155)
*** The 2005 reload of the CLAIMS files (Files 340, 341, 942)
is now available online.
Chemical Structure Searching now available in Prous Science Drug
Data Report (F452), Prous Science Drugs of the Future (F453),
IMS R&D Focus (F445/955), Pharmaprojects (F128/928), Beilstein
Facts (F390), Derwent Chemistry Resource (F355) and Index Chemicus
(File 302).
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 >>>http://www.dialog.com/whatsnew/. You can find news about <<
 >>>a specific database by entering HELP NEWS <file number>.<<
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     1:ERIC 1966-2006/Mar (c) format only 2006 Dialog
File
      Set Items Description
Cost is in DialUnits
B 155, 159, 10, 203, 35, 5, 467, 73, 434, 34
       20apr06 10:03:47 User290558 Session D32.1
                   0.233 DialUnits File1
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     $0.82 Estimated cost File1
     $0.19 INTERNET
     $1.01 Estimated cost this search
     $1.01 Estimated total session cost
                                           0.233 DialUnits
SYSTEM:OS - DIALOG OneSearch
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  File 159: Cancerlit 1975-2002/Oct
         (c) format only 2002 Dialog
 *File 159: Cancerlit is no longer updating.
Please see HELP NEWS159.
  File 10:AGRICOLA 70-2006/Mar
         (c) format only 2006 Dialog
  File 203:AGRIS 1974-2006/Nov
        Dist by NAL, Intl Copr. All rights reserved
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         (c) 2006 ProQuest Info&Learning
         5:Biosis Previews(R) 1969-2006/Apr W3
  File
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(c) 2006 BIOSIS
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        (c) 2001 Informania Ltd.
 *File 467: F467 will close on February 1, 2006.
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        (c) 2006 Elsevier Science B.V.
 File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec
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 File 34:SciSearch(R) Cited Ref Sci 1990-2006/Apr W2
         (c) 2006 Inst for Sci Info
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ANGIOGENESIS AND (CSF (N) 1) OR (M (N) CSF) AND (ANTI (N) ANGIOGENIC)
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Completed processing all files
         140160 ANGIOGENESIS
         232578 CSF
       15494869 1
           8382 CSF(N)1
        2816916 M
         232578 CSF
          12117 M(N)CSF
        1968901 ANTI
          50091 ANGIOGENIC
           8037 ANTI(N)ANGIOGENIC
             66 ANGIOGENESIS AND (CSF (N) 1) OR (M (N) CSF) AND (ANTI (N)
     S1
                 ANGIOGENIC)
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RD S1
             42 RD S1 (unique items)
     S2
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>>>No matching display code(s) found in file(s): 10, 34-35, 73, 155, 159,
   203, 434, 467
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               ANGIOGENESIS AND (CSF (N) 1) OR (M (N) CSF) AND (ANTI (N) -
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          66
            ANGIOGENIC)
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               RD S1 (unique items)
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S S2 AND VEGF
             42 S2
          62682 VEGF
     S3
             10 S2 AND VEGF
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              10 RD S3 (unique items)
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        Items
                Description
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                ANGIOGENESIS AND (CSF (N) 1) OR (M (N) CSF) AND (ANTI (N) -
             ANGIOGENIC)
                RD S1
                      (unique items)
S2
           42
S3
                S2 AND VEGF
           10
           10
                RD S3 (unique items)
S4
T S4/MEDIUM, K/1-10
  4/K/1
            (Item 1 from file: 155)
DIALOG(R) File 155: MEDLINE(R)
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19419716
           PMID: 16172397
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VEGF receptor 1 signaling is essential for osteoclast development and bone marrow formation in colony-stimulating factor 1-deficient mice.

Niida Shumpei; Kondo Takako; Hiratsuka Sachie; Hayashi Shin-Ichi; Amizuka Norio; Noda Tetsuo; Ikeda Kyoji; Shibuya Masabumi

Department of Bone and Joint Disease, Research Institute, National Center for Geriatrics and Gerontology, Aichi 474-8522, Japan. niida@nils.go.jp

Proceedings of the National Academy of Sciences of the United States of America (United States) Sep 27 2005, 102 (39) p14016-21, ISSN 0027-8424--Print Journal Code: 7505876

Publishing Model Print-Electronic Document type: Journal Article

Languages: ENGLISH
Main Citation Owner: NLM

Record type: MEDLINE; Completed

VEGF receptor 1 signaling is essential for osteoclast development and bone marrow formation in colony-stimulating...

VEGF receptor 1 (VEGFR-1/Flt-1) is a high-affinity tyrosine kinase (TK) receptor for VEGF and regulates angiogenesis as well as monocyte/macrophage functions. We previously showed that the osteoclast deficiency in osteopetrotic Csflop/Csflop (op/op) mice is gradually restored in an endogenous, VEGF -dependent manner. However, the molecular basis of the recovery is still not clear. To examine which VEGFR is important and to clarify how colony-stimulating factor 1 (CSF - 1) and VEGF signals interact in osteoclastogenesis, we introduced a VEGFR-1 signaling deficiency (Flt1(TK)-/-) into op...

 \dots results strongly suggest that the interaction of signals by means of VEGFR-1 and the CSF - 1 receptor plays a predominant role not only in osteoclastogenesis but also in the maintenance of...

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4/K/2 (Item 2 from file: 155)
DIALOG(R)File 155:MEDLINE(R)
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12727372 PMID: 10747927

Receptor chimeras indicate that the vascular endothelial growth factor receptor-1 (VEGFR-1) modulates mitogenic activity of VEGFR-2 in endothelial cells.

Rahimi N; Dayanir V; Lashkari K

Boston University, School of Medicine, Departments of Ophthalmology & Biochemistry, Boston, Massachusetts 02118, USA. nrahimi@bu.edu

Journal of biological chemistry (UNITED STATES) Jun 2 2000, 275 (22)

p16986-92, ISSN 0021-9258--Print Journal Code: 2985121R

Publishing Model Print

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: MEDLINE; Completed

Vascular endothelial growth factor (VEGF) provokes angiogenesis in vivo and stimulates growth and differentiation of endothelial cells in vitro. Although VEGF receptor-1 (VEGFR-1) and VEGFR-2 are known to be high affinity receptors for VEGF, it is not clear which of the VEGFRs are responsible for the transmission of the diverse biological responses of VEGF. For this purpose we have constructed a chimeric receptor for VEGFR-1 (CTR) and VEGFR...

...is readily tyrosine-phosphorylated in vivo, autophosphorylated in vitro, and stimulates cell proliferation in a CSF - 1 -dependent manner. In contrast, CTR individually expressed in PAE cells showed no significant in vivo, in vitro tyrosine phosphorylation and cell growth in response to CSF - 1 stimulation. The kinase activity of CKR was essential for its biological activity, since mutation of...

... VEGFR-1. Collectively, these findings demonstrate that VEGFR-2 activation plays a positive role in angiogenesis by promoting endothelial cell proliferation. In contrast, activation of VEGFR-1 plays a stationary role in angiogenesis by antagonizing VEGFR-2 responses.

4/K/3 (Item 1 from file: 35)
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02007539 ORDER NO: AADAA-I3124980

M-CSF and GM-CSF induce human monocytes to express either pro- or anti-angiogenic factors

Author: Eubank, Timothy D.

Degree: Ph.D. Year: 2003

Corporate Source/Institution: The Ohio State University (0168) Source: VOLUME 65/03-B OF DISSERTATION ABSTRACTS INTERNATIONAL. PAGE 1231. 188 PAGES

M - CSF and GM-CSF induce human monocytes to express either pro- or anti- angiogenic factors

The growth factor M - CSF is important in promoting monocyte survival. Since M - CSF (+/-) mice are protected against tumor metastases, we hypothesized that M - CSF induced monocytes to produce <italic>pro-angiogenic</italic> factors that facilitate this metastases. In part one of this study (Chapter 2), we demonstrated that recombinant human M - CSF stimulated freshly isolated normal human monocytes to produce and release the growth factor VEGF in a dose-dependent manner, which peaked at five days in culture. Importantly, VEGF released by these monocytes is biologically active, as cell-free supernatants from these M - CSF -stimulated monocytes induced both tube formation and cell migration from human umbilical vein endothelial cells (HUVECs) compared to supernatants

from non-stimulated monocytes. Neutralizing antibodies specific for VEGF inhibited all pro-angiogenic effects of these supernatants while isogenic control antibodies did not.

Interestingly...

...of monocytes to macrophages and dendritic cells, can induce normal human monocytes to produce <italic> anti - angiogenic </italic> factors that may reduce tumor progression. GM-CSF and IL-3 both stimulate mRNA...

...protein expression of the soluble VEGFR-1 receptor (sVEGFR-1) in human monocytes, which sequesters VEGF and inhibits its biological activity toward endothelial cells. Supernatants from GM-CSF- or IL-3-stimulated monocytes blocked antigenic detection of recombinant human (rh) VEGF from ELISA. In contrast, rhVEGF was still detected when incubated with supernatants from non-stimulated- or M - CSF -stimulated monocytes. Neutralizing sVEGFR-1 by incubating specific anti-sVEGFR-1 IgG antibodies with supernatants...

...italic>, we utilized the Matrigel $^{\mathbb{N}}$ Plug Assay (Chapter 4) in mice and showed that M - CSF not only enhances endothelial cell invasion and blood vessel formation in the plugs relative to a PBS control and similar to recombinant VEGF control plugs, but that it does so in a dose-dependent manner. (Abstract shortened by...

4/K/4 (Item 2 from file: 35)

DIALOG(R) File 35: Dissertation Abs Online

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01989746 ORDER NO: AADAA-I3115798

Role of Ets-2 phosphorylation in inflammation, development and cancer

Author: Wei, Guo Degree: Ph.D. Year: 2004

Corporate Source/Institution: The Ohio State University (0168) Source: VOLUME 64/12-B OF DISSERTATION ABSTRACTS INTERNATIONAL. PAGE 5909. 276 PAGES

...fertile, had increased life span and body weight, elevated macrophage apoptosis in the absence of CSF - 1 , but reduced inflammation and expression of inflammatory genes, including cytokines (TNF α), chemokines (MIP1&alpha...

...T72A/T72A </super> mice died between embryonic day 11.5 to 14.5, with dramatic angiogenesis and cardiovascular defects. Compared to control embryos, the double mutant embryos expressed lower levels of...

...target genes, such as Ang1, Tie2, MMP3, MMP9, and Fli-1, but elevated levels of $\tt VEGF$.

Therefore, Ets-2 phosphorylation is important in immune response, angiogenesis and cancer. To further explore the <italic>in vivo</italic>function of Ets-2, an...

...This allele is useful to address the cell antonymous function of Ets-2 in inflammation, angiogenesis and tumorgenesis (in tumor cells or stromal cells, including fibroblasts, macrophages and vessel cells) and...

4/K/5 (Item 3 from file: 35)
DIALOG(R)File 35:Dissertation Abs Online

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01532221 ORDER NO: NOT AVAILABLE FROM UNIVERSITY MICROFILMS INT'L.
CLONING AND CHARACTERIZATION OF A NEW ENDOTHELIAL RECEPTOR TYROSINE KINASE
FLT4 AND TWO NOVEL VEGF-LIKE GROWTH FACTORS VEGF-B AND VEGF-C (VASCULAR,
SIGNAL TRANSDUCTION, ANGIOGENESIS)

Author: PAJUSOLA, KATRI

Degree: PH.D. Year: 1996

Corporate Source/Institution: HELSINGIN YLIOPISTO (FINLAND) (0592) Source: VOLUME 58/01-C OF DISSERTATION ABSTRACTS INTERNATIONAL.

PAGE 107. 135 PAGES

ISBN: 952-90-7232-5

CLONING AND CHARACTERIZATION OF A NEW ENDOTHELIAL RECEPTOR TYROSINE KINASE FLT4 AND TWO NOVEL VEGF -LIKE GROWTH FACTORS VEGF -B AND VEGF -C (VASCULAR, SIGNAL TRANSDUCTION, ANGIOGENESIS)

...two RTKs, FLT1 and KDR/Flk-1, which are receptors for vascular endothelial growth factor (VEGF). These receptors share a highly homologous tyrosine kinase domain and an extracellular domain composed of

...chains held together by disulfide bonds. FLT4 was found not to be a receptor for VEGF, as VEGF did not bind to FLT4 or induce its autophosphorylation.

Signal transduction by FLT4 was studied...

...molecules and also interaction between the activated CSF-1R/FLT4 chimera and SHC. Stimulation by CSF - 1 induced thymidine incorporation in NIH3T3 cells expressing CSF-1R/FLT4.

The human cDNA for a novel VEGF -like factor, VEGF -B, was cloned in order to study it as a potential ligand for FLT4. VEGF -B encoded polypeptides were studied in transfected cells. VEGF -B was found to bind heparin, suggesting that it is bound to cell surface heparan sulfate. Furthermore, VEGF -B was shown to heterodimerize with VEGF when coexpressed in the same cells. VEGF -B stimulated DNA synthesis in human umbilical vein endothelial cells and bovine capillary endothelial cells.

VEGF -C was isolated from PC-3 human adenocarcinoma cells and identified as a ligand for FLT4 by its ability to stimulate autophosphorylation of FLT4. VEGF -C expressed in transfected cells stimulated migration of bovine capillary endothelial cells.

4/K/6 (Item 1 from file: 5)
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0015891562 BIOSIS NO.: 200600236957

Distinct role of macrophages in different tumor microenvironments

AUTHOR: Lewis Claire E (Reprint); Pollard Jeffrey W

AUTHOR ADDRESS: Univ Sheffield, Sch Med, Henry Wellcome Labs Med Res, Div Genom Med, Acad Unit Pathol, Floor E, Beech Hill Rd, Sheffield S10 2RX, S Yorkshire, UK**UK

AUTHOR E-MAIL ADDRESS: Claire.lewis@sheffield.ac.uk

JOURNAL: Cancer Research 66 (2): p605-612 JAN 15 2006 2006

ISSN: 0008-5472

DOCUMENT TYPE: Article; Literature Review

RECORD TYPE: Abstract LANGUAGE: English

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... ABSTRACT: of a distinct repertoire of growth factors, cytokines,
  chemokines, and enzymes that regulate tumor growth, angiogenesis,
  invasion, and/or metastasis. The distinct microenvironments where
  tumor-associated macrophages (TAM) act include areas...
...areas where TAMs promote metastasis, and avascular and perine-crotic
  areas where hypoxic TAMs stimulate angiogenesis . This review will
  discuss the evidence for differential regulation of TAMs in these
 microenvironments and...
... REGISTRY NUMBERS: VEGF ;
DESCRIPTORS:
  CHEMICALS & BIOCHEMICALS:
                              ... VEGF ; ...
... CSF - 1 ;
 MISCELLANEOUS TERMS:
                        angiogenesis ;
            (Item 2 from file: 5)
  4/K/7
DIALOG(R) File 5:Biosis Previews(R)
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            BIOSIS NO.: 200400285061
0014914304
 Intussusceptive microvascular growth is regulated by CSF-1 in association
with extracellular matrix-modifying factors in a human embryonic tumor
AUTHOR: Abraham Dietmar (Reprint); Paulus Patrick; Abri Samad; Aharinejad
  Sevedhossein
AUTHOR ADDRESS: Cardiovascular Research Group, Department of Anatomy, Cell
 Biology and Human Genetics, Vienna Medical University, Waehringerstrasse
  13, Vienna, A-1090, Austria**Austria
AUTHOR E-MAIL ADDRESS: dietmar.abraham@univie.ac.at
JOURNAL: FASEB Journal 18 (4-5): pAbst. 786.2 2004 2004
MEDIUM: e-file
CONFERENCE/MEETING: FASEB Meeting on Experimental Biology: Translating the
Genome Washington, District of Columbia, USA April 17-21, 2004; 20040417
SPONSOR: FASEB
ISSN: 0892-6638 _(ISSN print)
DOCUMENT TYPE: Meeting; Meeting Abstract
RECORD TYPE: Abstract
LANGUAGE: English
 Intussusceptive microvascular growth is regulated by CSF - 1 in
 association with extracellular matrix-modifying factors in a human
```

embryonic tumor xenograft

ABSTRACT: Vascular sprouting is a basic mechanism in tumor angiogenesis . Evidence suggests that a novel angiogenesis mechanism, intussusceptive microvascular growth (IMG), exists in pathological angiogenesis, however, the mechanisms underlying IMG in tumor angiogenesis are widely unknown. We monitored angiogenesis and the expression of angiogenic regulators in an established human embryonic tumor model. IMG occurred...

...while sprouting was observed in all tumor stages. IMG was suppressed after colony stimulating factor 1 (CSF - 1) blockade, and associated with selective upregulation of angiopoietin (Ang) and MMP-2 expression. Sprouting angiogenesis during the angiogenic switch in early stages was associated with upregulated vascular endothelial growth factor (VEGF)-A and matrix metalloproteinase (MMP)-9. These data suggest that IMG is regulated by CSF - 1 -mediated MMP-2 upregulation and Ang. IMG might act as a mechanism to compensate for ...

DESCRIPTORS:

MISCELLANEOUS TERMS: angiogenesis;

4/K/8 (Item 3 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)
(c) 2006 BIOSIS. All rts. reserv.

0009796054 BIOSIS NO.: 199598263887

In vitro neutralization of vascular endothelial growth factor activation of Flk-1 by a monoclonal antibody

AUTHOR: Rockwell Patricia (Reprint); Neufeld Gera; Glassman Allison; Caron Dan; Goldstein Neil

AUTHOR ADDRESS: Dep. Immunology, ImClone Systems Inc., 180 Varick Street, New York, NY 10014, USA**USA

JOURNAL: Molecular and Cellular Differentiation 3 (1): p91-109 1995 1995

ISSN: 1065-3074

DOCUMENT TYPE: Article RECORD TYPE: Abstract LANGUAGE: English

ABSTRACT: Vascular endothelial growth factor (VEGF) is a highly specific regulator of angiogenesis that mediates its mitogenic response through its cognate receptor flk-1. Flk-1 is an...

- ...differentiation during embryogenesis and solid tumor formation. A number of studies have provided evidence that VEGF plays a major role in the regulation of physiological and tumor angiogenesis. This work presents an in vitro characterization of an anti-flk-1 monoclonal antibody that neutralizes VEGF stimulation of a chimeric flk-1/fms receptor expressed in transfected 3T3 cells. DC101 competes with VEGF to reduce receptor phosphorylation and abrogates activation when the MAb is preincubated with cells prior...
- ...reactivity is shown by the neutralization and immunoprecipitation (IP) of activated flk-1/fms from VEGF -stimulated cells and by the lack of inhibition of CSF 1 activation of the fms receptor. MAb reactivity with human flk-1 receptor forms is shown by an IP of phosphorylation bands from VEGF -stimulated human umbilical vein endothelial (HUVEC) cells. Results of proliferation assays show that the MAb exerts an inhibitory effect on the VEGF -induced growth of HUVEC cells. The results of the studies showing the inhibitory effects of...
- ...that the antibody may have biological relevance for the use of antireceptor MAbs in blocking VEGF receptor interactions.

 DESCRIPTORS:

MISCELLANEOUS TERMS: ANGIOGENESIS REGULATOR...

...TUMOR ANGIOGENESIS

4/K/9 (Item 1 from file: 73)
DIALOG(R)File 73:EMBASE

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05978494 EMBASE No: 1995005667

Oncogenes, growth factors and suppressor genes and their prognostic relevance in ovarian carcinoma

ONKOGENE, WACHSTUMSFAKTOREN UND SUPPRESSORGENE BEIM OVARIALKARZINOM UND IHRE PROGNOSTISCHE BEDEUTUNG

```
Bauknecht T.; Kiechle-Schwarz M.; Brandstetter T.
Universitats-Frauenklinik, Hugstetter Str. 55,D-79106 Freiburg Germany
Klinisches Labor ( KLIN. LABOR ) (Germany) 1994, 40/12 (1215-1226)
CODEN: KLLAE ISSN: 0941-2131
DOCUMENT TYPE: Journal; Review
LANGUAGE: GERMAN SUMMARY LANGUAGE: GERMAN; ENGLISH
```

...RNA polymerase, resistance genes (metallothionein (MT), mdr-1) and angiogenetic factors (vascular endothelial growth factor (VEGF)). Other growth factor/cytokine/receptor systems that are frequently altered in ovarian carcinomas are CSF - 1 / CSF - 1 R, FGF, and the oncogenes Her-2, ras, c-myc, Act 2. In addition to the CSF - 1 signal, other hematopoietically effective cytokines (IL-1a, IL-1b, IL-3, IL-6, GM-CSF, CSF - 1 and TGF-alpha) can likewise be biologically active in ovarian carcinomas. Tumor genetic techniques (cytogenetics... ...ovarian carcinoma, and whether clinically relevant tumor characteristics such as development of resistance, tumor growth, angiogenesis and metastasis are caused by alterations in the function of these genes.

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4/K/10 (Item 1 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci
(c) 2006 Inst for Sci Info. All rts. reserv.
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03633082 Genuine Article#: PT392 No. References: 55

Title: SIGNALING PROPERTIES OF FLT4, A PROTEOLYTICALLY PROCESSED RECEPTOR

TYROSINE KINASE RELATED TO 2 VEGF RECEPTORS

Author(s): PAJUSOLA K; APRELIKOVA O; PELICCI G; WEICH H; CLAESSONWELSH L; ALITALO K

Corporate Source: UNIV HELSINKI, DEPT PATHOL, MOLEC CANC BIOL
LAB, PL21/SF-00014 HELSINKI//FINLAND/; UNIV HELSINKI, DEPT PATHOL, MOLEC
CANC BIOL LAB/SF-00014 HELSINKI//FINLAND/; UNIV PERUGIA, MONTELUCE
POLICLIN, IST CLIN MED/I-06100 PERUGIA//ITALY/; GESELL BIOTECHNOL FORSCH
MBH, DEPT GENE EXPRESS/W-3300 BRAUNSCHWEIG//GERMANY/; LUDWIG INST CANC
RES, UPPSALA BRANCH/S-75124 UPPSALA//SWEDEN/

Journal: ONCOGENE, 1994, V9, N12 (DEC), P3545-3555

ISSN: 0950-9232

Language: ENGLISH Document Type: ARTICLE (Abstract Available)

Title: SIGNALING PROPERTIES OF FLT4, A PROTEOLYTICALLY PROCESSED RECEPTOR TYROSINE KINASE RELATED TO 2 VEGF RECEPTORS

...Abstract: and KDR/FLK-1 proteins function as high-affinity receptors for vascular endothelial growth factor (VEGF). Here we show that FLT4 does not act as a receptor for VEGF , as VEGF did not show specific binding to the FLT4 tyrosine kinase or induce its autophosphorylation. Also, FLT4 did not interact with KDR in response to VEGF . However, when fused with the ligand binding domain of the colony stimulating factor-1 receptor (CSF-1R), the FLT4 tyrosine kinase was specifically activated by CSF - 1 . The activated FLT4 tyrosine kinase domain was found to interact with the Src homology 2 domains of the SHC and GRB2 adaptor proteins in vitro and with SHC in cells. CSF - 1 stimulation of the CSF-1R/FLT4 receptor chimera induced thymidine incorporation in serum-starved NIH3T3...

...Identifiers--PERMEABILITY FACTOR; HEPARIN-LIKE MOLECULES;
PROTO-ONCOGENE; CELL-SURFACE; FACTOR GENE; SH2 DOMAIN; BINDING;
EXPRESSION; ANGIOGENESIS
?

S (GENE (5N) SILENCING) AND (CSF (N) 1) OR (M (N) CSF) Processing

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Processing
Processed 10 of 10 files ...
Completed processing all files
        4233029 GENE
          40790 SILENCING
          24655 GENE (5N) SILENCING
         232578 CSF
       15494869 1
           8382 CSF(N)1
        2816916 M
         232578 CSF
          12117 M(N)CSF
          12121 (GENE (5N) SILENCING) AND (CSF (N) 1) OR (M (N) CSF)
?
Set
       Items
               Description
               ANGIOGENESIS AND (CSF (N) 1) OR (M (N) CSF) AND (ANTI (N) -
S1
          66
            ANGIOGENIC)
S2
                     (unique items)
          42
               RD S1
S3
               S2 AND VEGF
          10
S4
          10
               RD S3
                     (unique items)
S5
               (GENE (5N) SILENCING) AND (CSF (N) 1) OR (M (N) CSF)
       12121
?
T S2/MEDIUM, K/1-42
 2/K/1
           (Item 1 from file: 155)
DIALOG(R)File 155:MEDLINE(R)
(c) format only 2006 Dialog. All rts. reserv.
20421169
          PMID: 16618760
Colony-stimulating factor-1 antibody reverses chemoresistance in human
mcf-7 breast cancer xenografts.
 Paulus Patrick; Stanley E Richard; Schafer Romana; Abraham Dietmar;
Aharinejad Seyedhossein
 Laboratory for Cardiovascular Research, Department of Anatomy and Cell
Biology, Vienna Medical University, Vienna, Austria and Department of
Developmental and Molecular Biology, Albert Einstein College of Medicine,
Bronx, New York.
                                    Apr 15 2006, 66 (8) p4349-56,
  Cancer research (United States)
0008-5472--Print Journal Code: 2984705R
  Publishing Model Print
 Document type: Journal Article
 Languages: ENGLISH
 Main Citation Owner: NLM
 Record type: In Data Review
 Overexpression of colony-stimulating factor- 1 ( CSF - 1 ) and its
receptor in breast cancer is correlated with poor prognosis. Based on the
hypothesis that blockade of CSF - 1 would be beneficial in breast cancer
                                                            glycol-linked
treatment,
           we
                 developed
                            a
                                 murinized,
                                              polyethylene
antigen-binding fragment (Fab) against mouse (host) CSF - 1 (anti- CSF -
 1 Fab). Mice bearing human, chemoresistant MCF-7 breast cancer xenografts
       treated
              with
                       combination chemotherapy (CMF: cyclophosphamide,
```

methotrexate, 5-fluorouracil; cycled twice i.p.), anti- CSF - 1 Fab (i.p., cycled every 3 days for 14 days), combined CMF and anti- CSF - 1 Fab, or with Ringer's solution as a control. Anti- CSF - 1 Fab alone suppressed tissue CSF - 1 and retarded tumor growth by 40%. Importantly, in combination with CMF, anti- CSF - 1 Fab reversed chemoresistance of MCF-7

xenografts, suppressing tumor development by 56%, down-regulating expression...

... multidrug resistance gene 1, and glucosylceramide synthase, and prolonging survival significantly. Combined treatment also reduced angiogenesis and macrophage recruitment and down-regulated tumor matrix metalloproteinase-2 (MMP-2) and MMP-12 expression. These studies support the paradigm of CSF - 1 blockade in the treatment of solid tumors and show that anti- CSF - 1 antibodies are potential therapeutic agents for the treatment of mammary cancer. (Cancer Res 2006; 66...

2/K/2 (Item 2 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

(c) format only 2006 Dialog. All rts. reserv.

19419716 PMID: 16172397

VEGF receptor 1 signaling is essential for osteoclast development and bone marrow formation in colony-stimulating factor 1-deficient mice.

Niida Shumpei; Kondo Takako; Hiratsuka Sachie; Hayashi Shin-Ichi; Amizuka Norio; Noda Tetsuo; Ikeda Kyoji; Shibuya Masabumi

Department of Bone and Joint Disease, Research Institute, National Center for Geriatrics and Gerontology, Aichi 474-8522, Japan. niida@nils.go.jp

Proceedings of the National Academy of Sciences of the United States of America (United States) Sep 27 2005, 102 (39) p14016-21, ISSN 0027-8424--Print Journal Code: 7505876

Publishing Model Print-Electronic Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: MEDLINE; Completed

...1/Flt-1) is a high-affinity tyrosine kinase (TK) receptor for VEGF and regulates angiogenesis as well as monocyte/macrophage functions. We previously showed that the osteoclast deficiency in osteopetrotic...

... not clear. To examine which VEGFR is important and to clarify how colony-stimulating factor 1 (CSF - 1) and VEGF signals interact in osteoclastogenesis, we introduced a VEGFR-1 signaling deficiency (Flt1(TK $^{\circ}$

... results strongly suggest that the interaction of signals by means of VEGFR-1 and the CSF - 1 receptor plays a predominant role not only in osteoclastogenesis but also in the maintenance of...

2/K/3 (Item 3 from file: 155)

DIALOG(R) File 155: MEDLINE(R)

(c) format only 2006 Dialog. All rts. reserv.

15011523 PMID: 15289345

Colony-stimulating factor-1 blockade by antisense oligonucleotides and small interfering RNAs suppresses growth of human mammary tumor xenografts in mice.

Aharinejad Seyedhossein; Paulus Patrick; Sioud Mouldy; Hofmann Michael; Zins Karin; Schafer Romana; Stanley E Richard; Abraham Dietmar

Laboratory for Cardiovascular Research, Department of Anatomy and Cell Biology, Vienna Medical University, Waehringerstrasse 13, A-1090 Vienna, Austria. seyedhossein.aharinejad@meduniwien.ac.at

Cancer research (United States) Aug 1 2004, 64 (15) p5378-84, ISSN

0008-5472--Print Journal Code: 2984705R

Contract/Grant No.: CA 100324; CA; NCI; CA 26504; CA; NCI

Publishing Model Print

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: MEDLINE; Completed

Colony-stimulating factor (CSF)-1 is the primary regulator of tissue macrophage production. CSF - 1 expression is correlated with poor prognosis in breast cancer and is believed to enhance mammary...

... matrix metalloproteases (MMPs) and vascular endothelial growth factor, which are crucial for tumor invasion and angiogenesis. Given the important role of CSF - 1, we hypothesized that blockade of CSF - 1 or the CSF - 1 receptor (the product of the c-fms proto-oncogene) would suppress macrophage infiltration and mammary...

... growth. Human MCF-7 mammary carcinoma cell xenografts in mice were treated with either mouse CSF - 1 antisense oligonucleotide for 2 weeks or five intratumoral injections of either CSF - 1 small interfering RNAs or c-fms small interfering RNAs. These treatments suppressed mammary tumor growth...

... were decreased compared with tumors in control mice. In addition, mouse survival significantly increased after CSF - 1 blockade. These studies demonstrate that CSF - 1 and CSF - 1 receptor are potential therapeutic targets for the treatment of mammary cancer.

2/K/4 (Item 4 from file: 155)

DIALOG(R)File 155:MEDLINE(R)

(c) format only 2006 Dialog. All rts. reserv.

14792951 PMID: 15027489

Macrophages: modulators of breast cancer progression.

Lin Elaine Y; Pollard Jeffrey W

Center for the Study of Reproductive Biology and Women's Health, Department of Developmental and Molecular Biology, Albert Einstein College of Medicine, 1300 Morris Park, New York, NY 10461, USA.

Novartis Foundation symposium (England) 2004, 256 p158-68; discussion 168-72, 259-69, ISSN 1528-2511--Print Journal Code: 9807767

Publishing Model Print

Document type: Journal Article; Review

Languages: ENGLISH

Main Citation Owner: NLM

Record type: MEDLINE; Completed

... prognosis. Macrophages are recruited through the local expression of chemoattractants such as colony stimulating factor 1 (CSF - 1) and macrophage chemoattractant protein 1. Over-expression of both of these factors is correlated with...

... crossed mice deficient in macrophages owing to being homozygous for a null mutation in the CSF - 1 gene with mice pre-disposed to mammary cancer due to the epithelial restricted expression of...

... and inhibited metastasis. These data are explicable through the known macrophage functions in matrix remodelling, angiogenesis and stimulation of tumour growth and motility through the synthesis of growth and chemotactic factors...

2/K/5 (Item 5 from file: 155)

DIALOG(R) File 155: MEDLINE(R)

(c) format only 2006 Dialog. All rts. reserv.

12727372 PMID: 10747927

Receptor chimeras indicate that the vascular endothelial growth factor receptor-1 (VEGFR-1) modulates mitogenic activity of VEGFR-2 in endothelial cells.

Rahimi N; Dayanir V; Lashkari K

Boston University, School of Medicine, Departments of Ophthalmology & Biochemistry, Boston, Massachusetts 02118, USA. nrahimi@bu.edu

Journal of biological chemistry (UNITED STATES) Jun 2 2000, 275 (22) p16986-92, ISSN 0021-9258--Print Journal Code: 2985121R

Publishing Model Print

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: MEDLINE; Completed

Vascular endothelial growth factor (VEGF) provokes angiogenesis in vivo and stimulates growth and differentiation of endothelial cells in vitro. Although VEGF receptor...

...is readily tyrosine-phosphorylated in vivo, autophosphorylated in vitro, and stimulates cell proliferation in a CSF - 1 -dependent manner. In contrast, CTR individually expressed in PAE cells showed no significant in vivo, in vitro tyrosine phosphorylation and cell growth in response to CSF - 1 stimulation. The kinase activity of CKR was essential for its biological activity, since mutation of...

... VEGFR-1. Collectively, these findings demonstrate that VEGFR-2 activation plays a positive role in angiogenesis by promoting endothelial cell proliferation. In contrast, activation of VEGFR-1 plays a stationary role in angiogenesis by antagonizing VEGFR-2 responses.

2/K/6 (Item 6 from file: 155)

DIALOG(R)File 155:MEDLINE(R)

(c) format only 2006 Dialog. All rts. reserv.

12308306 PMID: 10027906

Auditory ossicle abnormalities and hearing loss in the toothless (osteopetrotic) mutation in the rat and their improvement after treatment with colony-stimulating factor-1.

Aharinejad S; Grossschmidt K; Franz P; Streicher J; Nourani F; MacKay C A; Firbas W; Plenk H; Marks S C

Department of Anatomy, University of Vienna, Vienna, Austria.; Department of Cell Biology, University of Massachusetts Medical Center, Worcester, Massachusetts, USA.

Journal of bone and mineral research - the official journal of the American Society for Bone and Mineral Research (UNITED STATES) Mar 1999,

14 (3) p415-23, ISSN 0884-0431--Print Journal Code: 8610640

Contract/Grant No.: DE07444; DE; NIDCR

Publishing Model Print

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: MEDLINE; Completed

... tl) rat, a lethal osteopetrotic mutation with few osteoclasts, very low bone turnover, and limited angiogenesis in the axial skeleton. Compared with normal littermates, 3-week-old mutants showed significantly reduced...

... in the vascular bed of the temporal bone. Treatment of mutants with colony-stimulating factor 1 (CSF - 1), known to greatly reduce sclerosis in the axial skeleton, significantly improved hearing, stapedial form and tissue composition, and angiogenesis in the temporal bone. In normal rats, the stapes consisted of 89.3% bone, 9...

... consisted of 48.3% bone, 35.9% mineralized cartilage, and 15.9% porosity, while after CSF - 1 treatment, the bone content increased to 55.2%, cartilage was decreased to 21.7%, and...

 \dots shows that the hearing loss in tl rats can be significantly improved following treatment with CSF - 1 .

2/K/7 (Item 7 from file: 155)

DIALOG(R) File 155: MEDLINE(R)

(c) format only 2006 Dialog. All rts. reserv.

10489293 PMID: 7540405

CSF-1 treatment promotes angiogenesis in the metaphysis of osteopetrotic (toothless, tl) rats.

Aharinejad S; Marks S C; Bock P; Mason-Savas A; MacKay C A; Larson E K; Jackson M E; Luftensteiner M; Wiesbauer E

First Department of Anatomy, University of Vienna, Austria.

Bone (UNITED STATES) Mar 1995, 16 (3) p315-24, ISSN 8756-3282--Print Journal Code: 8504048

Contract/Grant No.: DE-07444; DE; NIDCR

Publishing Model Print

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: MEDLINE; Completed

CSF - 1 treatment promotes angiogenesis in the metaphysis of osteopetrotic (toothless, tl) rats.

It has recently been shown that following treatment with colony-stimulating factor- 1 (CSF - 1) the osteopetrotic condition in toothless (tl) rats greatly improves and growth is accelerated. We have... ... distal femoral chondro-osseous junction, a site where bone growth in length is coordinated with angiogenesis . Vascular casts and ultrastructural analyses of this region showed that, compared to untreated normal rats, untreated mutants showed little bone growth or angiogenesis . When mutants were treated with CSF - 1 angiogenesis was markedly accelerated. These data show a remarkable effect of this growth factor on angiogenesis in this osteopetrotic mutation. Whether this effect of CSF - 1 on angiogenesis is direct or indirect is not known and indicates that its effects on the normal...

2/K/8 (Item 8 from file: 155)

DIALOG(R)File 155:MEDLINE(R)

(c) format only 2006 Dialog. All rts. reserv.

09976151 PMID: 7507444

Growth factors and growth modulators in human uterine endometrium: their potential relevance to reproductive medicine.

Giudice L C

Department of Gynecology and Obstetrics, Stanford University Medical Center, California 94305-5317.

Fertility and sterility (UNITED STATES) Jan 1994, 61 (1) p1-17,

ISSN 0015-0282--Print Journal Code: 0372772

Contract/Grant No.: HD22520; HD; NICHD

Publishing Model Print

Document type: Journal Article; Review

Languages: ENGLISH

Main Citation Owner: NLM

Record type: MEDLINE; Completed

... factors (IGFs) and their binding proteins, fibroblast growth factor (FGF), TGF-beta, colony-stimulating factor (CSF)-1, and interferon-gamma regulate mitosis of endometrial cellular components in vitro. Endothelin-1 may participate in vasoconstriction and FGF may participate in angiogenesis in this tissue in vivo. Interleukins-1 and -6 are believed to be involved in endometrial T-cell activation, and TGF-beta, CSF - 1, the interleukins, and the IGFs likely mediate endometrial-trophoblast interactions. The role of tumor necrosis...

2/K/9 (Item 9 from file: 155)

DIALOG(R)File 155:MEDLINE(R)

(c) format only 2006 Dialog. All rts. reserv.

08296526 PMID: 2692920 Record Identifier: 062349; 00198985

Prostaglandins and growth factors in the endometrium.

Smith S K

Bailliere's clinical obstetrics and gynaecology (ENGLAND) Jun 1989, 3 (2) p249-70, ISSN 0950-3552--Print Journal Code: 8710782

Publishing Model Print TJ: BAILLIERE S CLINICAL OBSTETRICS AND GYNAECOLOGY.

Document type: Journal Article; Review

Languages: ENGLISH

Main Citation Owner: NLM

Other Citation Owner: PIP; POP

Abstract Source: PIP

Record type: MEDLINE; Completed

 \dots PG release caused by ZK98734. Progesterone suppresses PG synthesis in human endometrium. Colony stimulating factor- 1 (CSF - 1) stimulates Ishikawa cell proliferation, acts on the hemopoietic system, and promotes the release of cytokines...

...interferons. Transforming growth factor alpha (TGF-alpha) mediates wound healing by promoting epithelial proliferation and angiogenesis and repairs desquamated endometrium. Epidermal growth factor (EGF) is present in the luminal surface of...

...in the uterine flushings and tissue of the guinea pig. FGF is a mediator of angiogenesis . different PGs affect vascular contractility, hemostasis, and myometrial contractility. PG synthesis is linked to menstrual...

2/K/10 (Item 1 from file: 35)

DIALOG(R)File 35:Dissertation Abs Online

(c) 2006 ProQuest Info&Learning. All rts. reserv.

02007539 ORDER NO: AADAA-I3124980

M-CSF and GM-CSF induce human monocytes to express either pro- or anti-angiogenic factors

Author: Eubank, Timothy D.

Degree: Ph.D. Year: 2003

Corporate Source/Institution: The Ohio State University (0168) Source: VOLUME 65/03-B OF DISSERTATION ABSTRACTS INTERNATIONAL.

PAGE 1231. 188 PAGES

M - CSF and GM-CSF induce human monocytes to express either pro- or anti- angiogenic factors

The growth factor M - CSF is important in promoting monocyte survival. Since M - CSF (+/-) mice are protected against tumor metastases, we hypothesized that M - CSF induced monocytes to produce <italic>pro-angiogenic</italic> factors that facilitate this metastases. In part one of this study (Chapter 2), we demonstrated that recombinant human M - CSF stimulated freshly isolated normal human monocytes to produce and release the growth factor VEGF in...

...Importantly, VEGF released by these monocytes is biologically active, as cell-free supernatants from these $\,M$ - CSF -stimulated monocytes induced both tube formation and cell migration from human umbilical vein endothelial cells...

...of monocytes to macrophages and dendritic cells, can induce normal human monocytes to produce <italic> anti - angiogenic </italic> factors that may reduce tumor progression. GM-CSF and IL-3 both stimulate mRNA...

...ELISA. In contrast, rhVEGF was still detected when incubated with supernatants from non-stimulated- or M - CSF -stimulated monocytes. Neutralizing sVEGFR-1 by incubating specific anti-sVEGFR-1 IgG antibodies with supernatants...

...italic>, we utilized the Matrigel $^{\mathtt{M}}$ Plug Assay (Chapter 4) in mice and showed that M - CSF not only enhances endothelial cell invasion and blood vessel formation in the plugs relative to...

2/K/11 (Item 2 from file: 35)
DIALOG(R)File 35:Dissertation Abs Online
(c) 2006 ProQuest Info&Learning. All rts. reserv.

01989746 ORDER NO: AADAA-I3115798

Role of Ets-2 phosphorylation in inflammation, development and cancer

Author: Wei, Guo Degree: Ph.D. Year: 2004

Corporate Source/Institution: The Ohio State University (0168) Source: VOLUME 64/12-B OF DISSERTATION ABSTRACTS INTERNATIONAL. PAGE 5909. 276 PAGES

...fertile, had increased life span and body weight, elevated macrophage apoptosis in the absence of CSF - 1 , but reduced inflammation and expression of inflammatory genes, including cytokines (TNF α), chemokines (MIP1&alpha...

...T72A/T72A </super> mice died between embryonic day 11.5 to 14.5, with dramatic angiogenesis and cardiovascular defects. Compared to control

embryos, the double mutant embryos expressed lower levels of...

...1, but elevated levels of VEGF.

Therefore, Ets-2 phosphorylation is important in immune response, angiogenesis and cancer. To further explore the <italic>in vivo</italic>function of Ets-2, an...

...This allele is useful to address the cell antonymous function of Ets-2 in inflammation, angiogenesis and tumorgenesis (in tumor cells or stromal cells, including fibroblasts, macrophages and vessel cells) and...

2/K/12 (Item 3 from file: 35)

DIALOG(R)File 35:Dissertation Abs Online

(c) 2006 ProQuest Info&Learning. All rts. reserv.

01532221 ORDER NO: NOT AVAILABLE FROM UNIVERSITY MICROFILMS INT'L.

CLONING AND CHARACTERIZATION OF A NEW ENDOTHELIAL RECEPTOR TYROSINE KINASE
FLT4 AND TWO NOVEL VEGF-LIKE GROWTH FACTORS VEGF-B AND VEGF-C (VASCULAR,
SIGNAL TRANSDUCTION, ANGIOGENESIS)

Author: PAJUSOLA, KATRI

Degree: PH.D. Year: 1996

Corporate Source/Institution: HELSINGIN YLIOPISTO (FINLAND) (0592)

Source: VOLUME 58/01-C OF DISSERTATION ABSTRACTS INTERNATIONAL.

PAGE 107. 135 PAGES ISBN: 952-90-7232-5

...AND TWO NOVEL VEGF-LIKE GROWTH FACTORS VEGF-B AND VEGF-C (VASCULAR, SIGNAL TRANSDUCTION, ANGIOGENESIS)

...molecules and also interaction between the activated CSF-1R/FLT4 chimera and SHC. Stimulation by CSF - 1 induced thymidine incorporation in NIH3T3 cells expressing CSF-1R/FLT4.

The human cDNA for a...

2/K/13 (Item 1 from file: 5)

DIALOG(R)File 5:Biosis Previews(R)

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0015891562 BIOSIS NO.: 200600236957

Distinct role of macrophages in different tumor microenvironments

AUTHOR: Lewis Claire E (Reprint); Pollard Jeffrey W

AUTHOR ADDRESS: Univ Sheffield, Sch Med, Henry Wellcome Labs Med Res, Div Genom Med, Acad Unit Pathol, Floor E, Beech Hill Rd, Sheffield S10 2RX, S Yorkshire, UK**UK

AUTHOR E-MAIL ADDRESS: Claire.lewis@sheffield.ac.uk

JOURNAL: Cancer Research 66 (2): p605-612 JAN 15 2006 2006

ISSN: 0008-5472

DOCUMENT TYPE: Article; Literature Review

RECORD TYPE: Abstract LANGUAGE: English

... ABSTRACT: of a distinct repertoire of growth factors, cytokines, chemokines, and enzymes that regulate tumor growth, angiogenesis, invasion, and/or metastasis. The distinct microenvironments where tumor-associated macrophages (TAM) act include areas...

...areas where TAMs promote metastasis, and avascular and perine-crotic

```
areas where hypoxic TAMs stimulate angiogenesis . This review will
  discuss the evidence for differential regulation of TAMs in these
  microenvironments and...
DESCRIPTORS:
  CHEMICALS & BIOCHEMICALS:
                              ... CSF - 1 ;
  MISCELLANEOUS TERMS: angiogenesis;
  2/K/14
            (Item 2 from file: 5)
DIALOG(R) File 5:Biosis Previews(R)
(c) 2006 BIOSIS. All rts. reserv.
            BIOSIS NO.: 200600182999
0015837604
 Thalidomide derivative CC-4047 inhibits osteoclast formation by down
 regulation of PU.1
AUTHOR: Lentzsch Suzanne (Reprint); Anderson Gulsum; Kurihara Noriyoshi;
  Honjo Tadashi; Anderson Judith; Mapara Markus Y; Stirling David; Roodman
AUTHOR ADDRESS: Univ Pittsburgh, Inst Canc, Div Hematol Oncol, Pittsburgh,
  PA USA**USA
JOURNAL: Blood 106 (11, Part 1): p187A NOV 16 2005 2005
CONFERENCE/MEETING: 47th Annual Meeting of the
American-Society-of-Hematology Atlanta, GA, USA December 10 -13, 2005;
20051210
SPONSOR: Amer Soc Hematol
ISSN: 0006-4971
DOCUMENT TYPE: Meeting; Meeting Abstract
RECORD TYPE: Abstract
LANGUAGE: English
ABSTRACT: CC-4047 (Actimid) is an immunomodulatory analog of thalidomide
  that has stronger anti-myeloma and anti - angiogenic activity than
  thalidomide, but its effects on human osteoclast lineage are unknown.
  Early osteoclast progenitors...
...and thalidomide on human osteoclastogenesis, using in vitro receptor
  activator of NF kappa-B ligand/ M - CSF stimulated culture system of
  bone marrow cells. Three weeks of treatment of primary bone marrow...
  2/K/15
             (Item 3 from file: 5)
DIALOG(R) File 5:Biosis Previews(R)
(c) 2006 BIOSIS. All rts. reserv.
0015129067
           BIOSIS NO.: 200500036132
 c-Src and cooperating partners in human cancer
AUTHOR: Ishizawar Rumey; Parsons Sarah J (Reprint)
AUTHOR ADDRESS: Ctr Canc, Univ Virginia Hlth Syst, POB 800734,
  Charlottesville, VA, 22908, USA**USA
AUTHOR E-MAIL ADDRESS: sap@virginia.edu
JOURNAL: Cancer Cell 6 (3): p209-214 September 2004 2004
MEDIUM: print
ISSN: 1535-6108 _(ISSN print)
DOCUMENT TYPE: Article; Literature Review
RECORD TYPE: Abstract
LANGUAGE: English
... ABSTRACT: to be a critical component of multiple signaling pathways that
  regulate proliferation, survival, metastasis, and angiogenesis . Because
  of its important role in these oncogenic processes, it represents a
```

```
therapeutic target ripe...
... REGISTRY NUMBERS: CSF - 1;
DESCRIPTORS:
                              CSF - 1 {colony stimulating factor 1...
  CHEMICALS & BIOCHEMICALS:
... angiogenesis , metastasis, proliferation, survival, non-receptor
    tyrosine kinase, proto-oncogene
  2/K/16
             (Item 4 from file: 5)
DIALOG(R)File
               5:Biosis Previews(R)
(c) 2006 BIOSIS. All rts. reserv.
0014914304
           BIOSIS NO.: 200400285061
 Intussusceptive microvascular growth is regulated by CSF-1 in association
 with extracellular matrix-modifying factors in a human embryonic tumor
 xenograft
AUTHOR: Abraham Dietmar (Reprint); Paulus Patrick; Abri Samad; Aharinejad
  Seyedhossein
AUTHOR ADDRESS: Cardiovascular Research Group, Department of Anatomy, Cell
  Biology and Human Genetics, Vienna Medical University, Waehringerstrasse
  13, Vienna, A-1090, Austria**Austria
AUTHOR E-MAIL ADDRESS: dietmar.abraham@univie.ac.at
JOURNAL: FASEB Journal 18 (4-5): pAbst. 786.2 2004 2004
MEDIUM: e-file
CONFERENCE/MEETING: FASEB Meeting on Experimental Biology: Translating the
Genome Washington, District of Columbia, USA April 17-21, 2004; 20040417
SPONSOR: FASEB
ISSN: 0892-6638 (ISSN print)
DOCUMENT TYPE: Meeting; Meeting Abstract
RECORD TYPE: Abstract
LANGUAGE: English
 Intussusceptive microvascular growth is regulated by CSF - 1 in
 association with extracellular matrix-modifying factors in a human
 embryonic tumor xenograft
ABSTRACT: Vascular sprouting is a basic mechanism in tumor angiogenesis .
  Evidence suggests that a novel angiogenesis mechanism, intussusceptive
  microvascular growth (IMG), exists in pathological angiogenesis,
  however, the mechanisms underlying IMG in tumor angiogenesis are widely
  unknown. We monitored angiogenesis and the expression of angiogenic
  regulators in an established human embryonic tumor model. IMG occurred...
...while sprouting was observed in all tumor stages. IMG was suppressed
  after colony stimulating factor 1 (CSF - 1) blockade, and associated
  with selective upregulation of angiopoietin (Ang) and MMP-2 expression.
  Sprouting angiogenesis during the angiogenic switch in early stages was
  associated with upregulated vascular endothelial growth factor (VEGF)-A
  and matrix metalloproteinase (MMP)-9. These data suggest that IMG is
  regulated by CSF - 1 -mediated MMP-2 upregulation and Ang. IMG might act
  as a mechanism to compensate for ...
DESCRIPTORS:
 MISCELLANEOUS TERMS:
                         angiogenesis;
  2/K/17
             (Item 5 from file: 5)
DIALOG(R)File
              5:Biosis Previews(R)
(c) 2006 BIOSIS. All rts. reserv.
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0013803516 BIOSIS NO.: 200200397027
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Inhibiting colony stimulating factor (CSF)-1 suppresses tumor growth in mice

AUTHOR: Aharinejad Seyedhossein (Reprint); Abraham Dietmar (Reprint); Paulus Patrick (Reprint); Stanley E Richard; Hofbauer Reinhold AUTHOR ADDRESS: Laboratory for Cardiovascular Research, Department of Anatomy, University of Vienna, Waehringerstrasse 13, Vienna, A-1090,

Austria**Austria

JOURNAL: FASEB Journal 16 (5): pA1205 March 22, 2002 2002

MEDIUM: print

CONFERENCE/MEETING: Annual Meeting of Professional Research Scientists on Experimental Biology New Orleans, Louisiana, USA April 20-24, 2002;

20020420

ISSN: 0892-6638

DOCUMENT TYPE: Meeting; Meeting Abstract

RECORD TYPE: Abstract LANGUAGE: English

Inhibiting colony stimulating factor (CSF) - 1 suppresses tumor growth in mice

ABSTRACT: Degradation of extracellular matrix (ECM) by matrix metalloproteinases (MMPs) is fundamental in tumor metastasis and angiogenesis. Macrophages are stimulated by CSF - 1 and modify ECM by production of MMPs. Blocking CSF - 1 could thus suppress tumor growth. SCID-mice xenografted with a human embryonic testicular tumor were treated with CSF - 1 antisense oligonucleotides (ODNs) or scrambled ODNs (control). CSF - 1 mRNA and protein tissue levels were examined by real time RT-PCR (LightCycler) and RIA...

...immunocytochemistry. mRNA expression of angiogenic molecules was measured by RT-PCR. Dependent on the sequence, CSF - 1 antisense ODNs selectively suppressed tumor progression, and downregulated CSF - 1 mRNA and protein expression vs. controls (p<0.005). MMP-2 expression levels, MVD, and mRNA expression of angiogenic factors decreased following CSF - 1 antisense ODN treatment (p<0.005). These data suggest that blocking CSF - 1 by antisense ODNs retards growth of a human embryonic tumor in mice by decelerating ECM breakdown, most likely mediated by MMP-2. Blocking CSF - 1 could be a novel strategy in cancer treatment.

2/K/18 (Item 6 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)
(c) 2006 BIOSIS. All rts. reserv.

0013609624 BIOSIS NO.: 200200203135

Cellular signalling pathways: New targets in leukaemia therapy AUTHOR: Ravandi F; Talpaz M; Kantarjian H; Estrov Zeev (Reprint)

AUTHOR ADDRESS: Department of Bioimmunotherapy, University of Texas - M.D.

Anderson Cancer Center, 1515 Holcombe Boulevard, Houston, TX, 77030, USA **USA

JOURNAL: British Journal of Haematology 116 (1): p57-77 January, 2002 2002

MEDIUM: print ISSN: 0007-1048

DOCUMENT TYPE: Article; Literature Review

RECORD TYPE: Citation LANGUAGE: English

DESCRIPTORS:

CHEMICALS & BIOCHEMICALS: ... angiogenesis inhibitor...

```
...colony-stimulating factor- 1 { CSF - 1 };
             (Item 7 from file: 5)
  2/K/19
DIALOG(R) File 5:Biosis Previews(R)
(c) 2006 BIOSIS. All rts. reserv.
            BIOSIS NO.: 200100264350
0013092511
 Colony stimulating factor-1 (CSF-1) deficient op mice have blunted vascular
 sprouting but show tumor-induced intussusceptive vascular growth
AUTHOR: Abri Hojatollah (Reprint); Abraham Dietmar (Reprint); Tschernutter
  Marion; Hofbauer Reinhold; Miksovsky Aurelia (Reprint); Aharinejad
  Seyedhossein (Reprint)
AUTHOR ADDRESS: Department of Anatomy, Waehringerstrasse 13, Vienna,
  A-1090, Austria**Austria
JOURNAL: FASEB Journal 15 (4): pA459 March 7, 2001 2001
MEDIUM: print
CONFERENCE/MEETING: Annual Meeting of the Federation of American Societies
for Experimental Biology on Experimental Biology 2001 Orlando, Florida,
USA March 31-April 04, 2001; 20010331
ISSN: 0892-6638
DOCUMENT TYPE: Meeting; Meeting Abstract
RECORD TYPE: Abstract
LANGUAGE: English
 Colony stimulating factor- 1 (CSF - 1) deficient op mice have blunted
 vascular sprouting but show tumor-induced intussusceptive vascular growth
ABSTRACT: We have previously shown that CSF - 1 promotes angiogenesis
  in vivo by stimulating production of macrophages. Macrophages produce
  factors like basic fibroblast growth factor and transforming growth
  factor alpha that stimulate angiogenesis directly. op mice have a
  naturally occurring CSF - 1 gene defect and retarded tumor development.
  To test the hypothesis whether retarded tumor growth in op mice might be
  due to blunted angiogenesis , caused by CSF - 1 gene defect, testes of
  mutant op mice and normal littermates (op/+) were injected with malignant
  . . .
...tumorous normal littermates (p < 0.05). These data show that vascular
  sprouting is blunted in CSF - 1 "knocked-out" op mice and that
  intussusceptive vascular growth might occur as a mechanism to compensate
  for the lower sprouting rate in this strain. CSF - 1 triggers
  angiogenesis .
DESCRIPTORS:
  GENE NAME: mouse CSF - 1 gene (Muridae) {mouse colony stimulating
    factor-1 gene}
 MISCELLANEOUS TERMS:
                         angiogenesis;
  2/K/20
             (Item 8 from file: 5)
DIALOG(R) File 5:Biosis Previews(R)
(c) 2006 BIOSIS. All rts. reserv.
            BIOSIS NO.: 200100102215
0012930376
 The endothelial receptor tyrosine kinase Tiel inhibits apoptosis through a
phosphatidylinositol 3-kinase-dependent, AKT-independent mechanism
AUTHOR: Kontos Christopher D (Reprint); Cha Eugene H (Reprint); Peters
  Kevin G
AUTHOR ADDRESS: Duke Univ Medical Ctr, Durham, NC, USA**USA
JOURNAL: Circulation 102 (18 Supplement): pII.297 October 31, 2000 2000
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MEDIUM: print
CONFERENCE/MEETING: Abstracts from American Heart Association Scientific
Sessions 2000 New Orleans, Louisiana, USA November 12-15, 2000; 20001112
SPONSOR: American Heart Association
ISSN: 0009-7322
DOCUMENT TYPE: Meeting; Meeting Abstract
RECORD TYPE: Citation
LANGUAGE: English
DESCRIPTORS:
  CHEMICALS & BIOCHEMICALS: ... CSF - 1 {colony stimulating factor-1...
... CSF - 1 receptor
  MISCELLANEOUS TERMS:
                         ... angiogenesis ;
  2/K/21
             (Item 9 from file: 5)
DIALOG(R)File
               5:Biosis Previews(R)
(c) 2006 BIOSIS. All rts. reserv.
0009796054
            BIOSIS NO.: 199598263887
 In vitro neutralization of vascular endothelial growth factor activation of
 Flk-1 by a monoclonal antibody
AUTHOR: Rockwell Patricia (Reprint); Neufeld Gera; Glassman Allison; Caron
  Dan; Goldstein Neil
AUTHOR ADDRESS: Dep. Immunology, ImClone Systems Inc., 180 Varick Street,
  New York, NY 10014, USA**USA
JOURNAL: Molecular and Cellular Differentiation 3 (1): p91-109 1995 1995
ISSN: 1065-3074
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English
ABSTRACT: Vascular endothelial growth factor (VEGF) is a highly specific
  regulator of angiogenesis that mediates its mitogenic response through
  its cognate receptor flk-1. Flk-1 is an...
...provided evidence that VEGF plays a major role in the regulation of
  physiological and tumor angiogenesis . This work presents an in vitro
  characterization of an anti-flk-1 monoclonal antibody that...
...activated flk-1/fms from VEGF-stimulated cells and by the lack of
  inhibition of CSF - 1 activation of the fms receptor. MAb reactivity
  with human flk-1 receptor forms is shown...
DESCRIPTORS:
  MISCELLANEOUS TERMS:
                         ANGIOGENESIS REGULATOR...
...TUMOR ANGIOGENESIS
  2/K/22
             (Item 10 from file: 5)
DIALOG(R) File 5: Biosis Previews(R)
(c) 2006 BIOSIS. All rts. reserv.
0009740745
            BIOSIS NO.: 199598208578
 Colony stimulating factor-1 (CSF-1) contracts pulmonary veins and causes
 pleural angiogenesis in rats
AUTHOR: Aharinejad S (Reprint); Marks S C Jr; Larson E E; Boeck P;
  Schraufnagel D E
AUTHOR ADDRESS: Dep. Cell Biol., Univ. Mass., Worcester, MA, USA**USA
JOURNAL: FASEB Journal 9 (3): pA432 1995 1995
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CONFERENCE/MEETING: Experimental Biology 95, Part I Atlanta, Georgia, USA April 9-13, 1995; 19950409 ISSN: 0892-6638 DOCUMENT TYPE: Meeting; Meeting Abstract RECORD TYPE: Citation LANGUAGE: English Colony stimulating factor- 1 (CSF - 1) contracts pulmonary veins and causes pleural angiogenesis in rats (Item 11 from file: 5) 2/K/23 DIALOG(R)File 5:Biosis Previews(R) (c) 2006 BIOSIS. All rts. reserv. 0008872040 BIOSIS NO.: 199396036456 CSF-1 stimulates nucleoside transport in S1 macrophages AUTHOR: Meckling-Gill Kelly A (Reprint); Guilbert Larry; Cass Carol E AUTHOR ADDRESS: Dep. Nutritional Sci., Univ. Guelph, Guelph, ON N1G 2W1, Canada * * Canada JOURNAL: Journal of Cellular Physiology 155 (3): p530-538 1993 ISSN: 0021-9541 DOCUMENT TYPE: Article RECORD TYPE: Abstract LANGUAGE: English CSF - 1 stimulates nucleoside transport in S1 macrophages ... ABSTRACT: bone marrow macrophages (S1 macrophages) in response to the macrophage growth factor, colony-stimulating factor 1 (CSF - 1). Adenosine and uridine transport in quiescent S1 macrophages occurred primarily by two facilitated diffusional routes... ...was sensitive and one that was relatively resistant to the inhibitor nitrobenzylthioinosine (NBMPR). Addition of CSF - 1 to quiescent cultures resulted in increased adenosine and uridine transport with biphasic kinetics with respect to the cell cycle. Basal NT activity was elevated (about twofold) within 15 min of CSF - 1 addition, returned to near basal levels by 1 h, and then increased again (three- to fourfold) 8-12 h later, returning again to basal levels by 48 h post CSF - 1 stimulation. We propose that the large increase in NT activity at 8-12 h correspondedthe absolute rates, the proportions of NBMPR-sensitive and NBMPR-insensitive transport also change after CSF - 1 addition. Quiescent cultures exhibited primarily NBMPR-insensitive transport while logrithmically growing cultures exhibited primarily NBMPR... **DESCRIPTORS:** MISCELLANEOUS TERMS: ANGIOGENESIS ; 2/K/24 (Item 1 from file: 73) DIALOG(R) File 73: EMBASE (c) 2006 Elsevier Science B.V. All rts. reserv. 12565893 EMBASE No: 2004148648 The macrophage growth factor CSF-1 in mammary gland development and tumor progression

Lin E.Y.; Gouon-Evans V.; Nguyen A.V.; Pollard J.W.

J.W. Pollard, Ctr. Stud. Repro. Biol. Women's H., Depts. Devmtl. Molec.

Biol. O., Albert Einstein College of Medicine, 1300 Morris Park Avenue, New York, NY 10461 United States
AUTHOR EMAIL: pollard@aecom.yu.edu
Journal of Mammary Gland Biology and Neoplasia (J. MAMMARY GLAND BIOL.
NEOPLASIA) (United States) 2002, 7/2 (147-162)
CODEN: JMBNF ISSN: 1083-3021
DOCUMENT TYPE: Journal; Review
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH
NUMBER OF REFERENCES: 108

The macrophage growth factor CSF - 1 in mammary gland development and tumor progression

Colony stimulating factor 1 (CSF - 1), a major regulator of the mononuclear phagocytic lineage, is expressed in more than 70% of human breast cancers and its expression is correlated with poor prognosis. Studies of CSF - 1 null mutant mice demonstrated that CSF - 1 plays an important role in normal mammary ductal development as well as in mammary tumor progression to metastasis. CSF - 1 regulates these processes through the recruitment and regulation of macrophages, cells that become associated with...

...the tumor access to the vasculature and consequently the promotion of metastasis. In addition, soluble CSF - 1 secreted from the tumor acts to divert antitumor macrophage responses and suppresses the differentiation of ...

...discusses these observations in detail and attempts to fit them into a larger picture of CSF - 1 and macrophage action in the regulation of normal mammary gland development and tumor progression.

MEDICAL DESCRIPTORS:

...splicing; protein phosphorylation; autocrine effect; paracrine signaling; Listeria monocytogenes; Mouse mammary tumor oncovirus; cancer invasion; angiogenesis; bone metastasis; nonhuman; female; mouse; animal experiment; animal model; controlled study; animal tissue; review

2/K/25 (Item 2 from file: 73)
DIALOG(R)File 73:EMBASE
(c) 2006 Elsevier Science B.V. All rts. reserv.

07408895 EMBASE No: 1998284692

Angiostatin-mediated suppression of cancer metastases by primary neoplasms engineered to produce granulocyte/macrophage colony-stimulating factor

Dong Z.; Yoneda J.; Kumar R.; Fidler I.J.
Z. Dong, Department of Cell Biology, Box 173, Texas Univ. M.D. Anderson
Can. Ctr., 1515 Holcombe Blvd., Houston, TX 77030 United States
AUTHOR EMAIL: zdong@notes.mdacc.tmc.edu
Journal of Experimental Medicine (J. EXP. MED.) (United States) 17 AUG
1998, 188/4 (755-763)
CODEN: JEMEA ISSN: 0022-1007
DOCUMENT TYPE: Journal; Article
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH
NUMBER OF REFERENCES: 41

...K-1735 (syngeneic to C3H/HeN mice), were engineered to produce GM-CSF. High GM- CSF (> 1 ng/10sup 6 cells)- and low GM-CSF (<10 pg/10sup 6 cells)-producing clones...
MEDICAL DESCRIPTORS:

macrophage; cancer inhibition; carcinogenicity; angiogenesis; enzyme linked immunosorbent assay; immunoblotting; polyacrylamide gel electrophoresis; immunohistochemistry; northern blotting; nonhuman; male; mouse; animal...

2/K/26 (Item 3 from file: 73)
DIALOG(R)File 73:EMBASE
(c) 2006 Elsevier Science B.V. All rts. reserv.

05978494 EMBASE No: 1995005667

Oncogenes, growth factors and suppressor genes and their prognostic relevance in ovarian carcinoma

ONKOGENE, WACHSTUMSFAKTOREN UND SUPPRESSORGENE BEIM OVARIALKARZINOM UND IHRE PROGNOSTISCHE BEDEUTUNG

Bauknecht T.; Kiechle-Schwarz M.; Brandstetter T.
Universitats-Frauenklinik, Hugstetter Str. 55,D-79106 Freiburg Germany
Klinisches Labor (KLIN. LABOR) (Germany) 1994, 40/12 (1215-1226)
CODEN: KLLAE ISSN: 0941-2131
DOCUMENT TYPE: Journal; Review
LANGUAGE: GERMAN SUMMARY LANGUAGE: GERMAN; ENGLISH

...VEGF)). Other growth factor/cytokine/receptor systems that are frequently altered in ovarian carcinomas are CSF - 1 / CSF - 1 R, FGF, and the oncogenes Her-2, ras, c-myc, Act 2. In addition to the CSF - 1 signal, other hematopoietically effective cytokines (IL-1a, IL-1b, IL-3, IL-6, GM-CSF, CSF - 1 and TGF-alpha) can likewise be biologically active in ovarian carcinomas. Tumor genetic techniques (cytogenetics...

...ovarian carcinoma, and whether clinically relevant tumor characteristics such as development of resistance, tumor growth, angiogenesis and metastasis are caused by alterations in the function of these genes.

2/K/27 (Item 1 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci
(c) 2006 Inst for Sci Info. All rts. reserv.

14453919 Genuine Article#: 974PJ No. References: 42
Title: Induction of a proinflammatory program in normal human thyrocytes by
the RET/PTCl oncogene

Author(s): Borrello MG; Alberti L; Fischer A; Degl'Innocenti D; Ferrario C;
 Gariboldi M; Marchesi F; Allavena P; Greco A; Collini P; Pilotti S;
 Cassinelli G; Bressan P; Fugazzola L; Mantovani A; Pierotti MA
 (REPRINT)

Corporate Source: Mario Negri Inst Pharmacol Res, Dept Immunol & Cell Biol, I-20157 Milan//Italy/ (REPRINT); Mario Negri Inst Pharmacol Res, Dept Immunol & Cell Biol, I-20157 Milan//Italy/; Ist Nazl Tumori, Dept Expt Oncol, Res Unit 3, I-20133 Milan//Italy/; Ist Nazl Tumori, Dept Expt Oncol, Res Unit 14, I-20133 Milan//Italy/; Ist Nazl Tumori, Dept Expt Oncol, Unit Pathol, I-20133 Milan//Italy/; Univ Massachusetts, Dept Pathol, Worcester//MA/01605; Fdn Italiana Ric Canc, Inst Mol Oncol Fdn, I-20139 Milan//Italy/; Osped Maggiore, Inst Endocrine Sci, I-20122 Milan//Italy/; Univ Milan, Inst Gen Pathol, I-20133 Milan//Italy/; Ist Clin Humanitas, I-20089 Rozzano//Italy/(alberto.mantovani@humanitas.it; marco.pierotti@istitutotumori.mi.it)

Journal: PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA, 2005, V102, N41 (OCT 11), P14825-14830

ISSN: 0027-8424 Publication date: 20051011

Publisher: NATL ACAD SCIENCES, 2101 CONSTITUTION AVE NW, WASHINGTON, DC

20418 USA

Language: English Document Type: ARTICLE (ABSTRACT AVAILABLE)

...Abstract: invasion, including those encoding chemokines (CCL2, CCL20, CXCL8, and CXCL12), chemokine receptors (CXCR4), cytokines (IL1B, CSF - 1, GM-CSF, and G-CSF), matrix-degrading enzymes (metalloproteases and urokinase-type plasminogen activator and...

...Identifiers--PAPILLARY THYROID-CARCINOMA; TUMOR-ASSOCIATED MACROPHAGES; GROWTH-FACTOR HGF; GENE-EXPRESSION; MOUSE MODEL; CANCER; RET; ANGIOGENESIS; INFLAMMATION; RAS

2/K/28 (Item 2 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci
(c) 2006 Inst for Sci Info. All rts. reserv.

14036111 Genuine Article#: 934UN No. References: 24

Title: Macrophages promote the invasion of breast carcinoma cells via a colony-stimulating factor-1/epidermal growth factor paracrine loop

Author(s): Goswami S (REPRINT); Sahai E; Wyckoff JB; Cammer N; Cox D; Pixley FJ; Stanley ER; Segall JE; Condeelis JS

Corporate Source: Yeshiva Univ Albert Einstein Coll Med, Dept Anat & Struct Biol, 1300 Morris Pk Ave/Bronx//NY/10461 (REPRINT); Yeshiva Univ Albert Einstein Coll Med, Dept Anat & Struct Biol, Bronx//NY/10461; Yeshiva Univ Albert Einstein Coll Med, Dept Dev & Mol Biol, Bronx//NY/10461; Yeshiva Univ Albert Einstein Coll Med, Analyt Imaging Facil, Bronx//NY/10461; Canc Res UK, London Res Inst, Tumor Cell Biol Lab, London//England/(sqoswami@aecom.yu.edu)

Journal: CANCER RESEARCH, 2005, V65, N12 (JUN 15), P5278-5283

ISSN: 0008-5472 Publication date: 20050615

Publisher: AMER ASSOC CANCER RESEARCH, 615 CHESTNUT ST, 17TH FLOOR, PHILADELPHIA, PA 19106-4404 USA

Language: English Document Type: ARTICLE (ABSTRACT AVAILABLE)

...Abstract: promotes the formation of elongated protrusions and cell invasion by carcinoma cells. Colony stimulating factor 1 (CSF - 1) produced by carcinoma cells promotes the expression of EGF by macrophages. In addition, EGF promotes the expression of CSF - 1 by carcinoma cells thereby generating a positive feedback loop. Disruption of this loop by blockade of either EGF receptor or CSF - 1 receptor signaling is sufficient to inhibit both macrophage and tumor cell migration and invasion.

...Identifiers--MAMMARY-TUMORS; EGF RECEPTOR; CANCER; ANGIOGENESIS; INFILTRATION; PROGRESSION; FIBROBLAST; EXPRESSION; LINE

2/K/29 (Item 3 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci
(c) 2006 Inst for Sci Info. All rts. reserv.

13812530 Genuine Article#: 913QA No. References: 50
Title: The carboxyl terminus of VEGFR-2 is required for PKC-mediated down-regulation

Author(s): Singh AJ; Meyer RD; Band H; Rahimi N (REPRINT)
Corporate Source: Boston Univ,Sch Med, Dept Ophthalmol,Boston//MA/02118
(REPRINT); Boston Univ,Sch Med, Dept Ophthalmol,Boston//MA/02118;
Boston Univ,Sch Med, Dept Biochem,Boston//MA/02118; Northwestern
Univ,Feinberg Sch Med, Robert H Lurie Comprehens Canc Ctr, Evanston NW
Healthcare Re,Evanston//IL/60208(nrahimi@bu.edu)

Journal: MOLECULAR BIOLOGY OF THE CELL, 2005, V16, N4 (APR), P2106-2118

```
ISSN: 1059-1524 Publication date: 20050400
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Publisher: AMER SOC CELL BIOLOGY, 8120 WOODMONT AVE, STE 750, BETHESDA, MD 20814-2755 USA

Language: English Document Type: ARTICLE (ABSTRACT AVAILABLE)

- ...Abstract: receptor-2 (VEGFR-2/Flk-1) is a receptor tyrosine kinase (RTK) whose activation regulates angiogenesis. The regulatory mechanisms that attenuate VEGFR-2 signal relay are largely unknown. Our study shows...
- ...Identifiers--C; ALPHA-CONVERTING ENZYME; GAMMA-SECRETASE CLEAVAGE; TYROSINE KINASE; ENDOTHELIAL-CELLS; DEPENDENT ACTIVATION; SIGNAL-TRANSDUCTION; CSF 1 RECEPTOR; EGF RECEPTOR

2/K/30 (Item 4 from file: 34) DIALOG(R)File 34:SciSearch(R) Cited Ref Sci (c) 2006 Inst for Sci Info. All rts. reserv.

13411188 Genuine Article#: 878HK No. References: 17

Title: Prognostic factors in oral cavity and oropharyngeal squamous cell carcinoma - The impact of tumor-associated macrophages

Author(s): Marcus B; Arenberg D; Lee J; Kleer C; Chepeha DB; Schmalbach CE;
 Islam M; Paul S; Pan Q; Hanash S; Kuick R; Merajver SD; Teknos TN
 (REPRINT)

Corporate Source: Univ Michigan, Med Ctr, Dept Otolaryngol Head & Neck Surg, 1500 E Med Ctr Dr, 1904 Taubman Ctr/Ann Arbor//MI/48103 (REPRINT); Univ Michigan, Med Ctr, Dept Otolaryngol Head & Neck Surg, Ann Arbor//MI/48103; Univ Michigan, Med Ctr, Dept Internal Med, Div Pulm Med, Ann Arbor//MI/48103; Univ Michigan, Med Ctr, Dept Biostat, Ann Arbor//MI/48103; Univ Michigan, Med Ctr, Dept Pathol, Ann Arbor//MI/48103; Univ Michigan, Med, Div Hematol Oncol, Ann Arbor//MI/48103; Univ Michigan, Med Ctr, Dept Pediat, Ann Arbor//MI/48103 (llocke@umich.edu)

Journal: CANCER, 2004, V101, N12 (DEC 15), P2779-2787 ISSN: 0008-543X Publication date: 20041215

Publisher: JOHN WILEY & SONS INC, 111 RIVER ST, HOBOKEN, NJ 07030 USA Language: English Document Type: ARTICLE (ABSTRACT AVAILABLE)

...Identifiers--LUNG-CANCER; DENDRITIC CELLS; POOR-PROGNOSIS; BREAST-CANCER; FACTOR CSF - 1; ANGIOGENESIS; EXPRESSION; PROGRESSION

2/K/31 (Item 5 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci
(c) 2006 Inst for Sci Info. All rts. reserv.

10990652 Genuine Article#: 594TE No. References: 50

Title: Colony-stimulating factor-1 antisense treatment suppresses growth of human tumor xenografts in mice

Author(s): Aharinejad S (REPRINT); Abraham D; Paulus P; Abri H; Hofmann M; Grossschmidt K; Schafer R; Stanley ER; Hofbauer R

Corporate Source: Univ Vienna, Dept Anat, Cardiovasc Res Lab, Waehringerstr 13/A-1090 Vienna//Austria/ (REPRINT); Univ Vienna, Dept Anat, Cardiovasc Res Lab, A-1090 Vienna//Austria/; Univ Vienna, Vienna Bioctr, Inst Med Biochem, Dept Mol Biol, A-1030 Vienna//Austria/; Univ Vienna, Dept Histol, A-1090 Vienna//Austria/; Yeshiva Univ Albert Einstein Coll Med, Dept Dev & Mol Biol, Bronx//NY/10461

Journal: CANCER RESEARCH, 2002, V62, N18 (SEP 15), P5317-5324 ISSN: 0008-5472 Publication date: 20020915

Publisher: AMER ASSOC CANCER RESEARCH, PO BOX 11806, BIRMINGHAM, AL 35202

Language: English Document Type: ARTICLE (ABSTRACT AVAILABLE)

...Abstract: adjacent stromal cells, primarily macrophages. The production of macrophages is regulated by colony-stimulating factor- 1 (CSF - 1). Tissue CSF - 1 expression increased significantly in embryonic and colon cancer xenografts. We, therefore, hypothesized that blocking CSF - 1 may suppress tumor growth by decelerating macrophage-mediated extracellular matrix breakdown. Cells expressing CSF - 1 and mice xenografted with CSF - 1 receptor (c-fms) - and CSF - 1 -negative malignant human embryonic or colon cancer cells were treated with mouse CSF - 1 antisense oligonucleotides. Two weeks of CSF - 1 antisense treatment selectively down-regulated CSF - 1 mRNA and protein tissue expression in tumor lysates. CSF - 1 blockade suppressed the growth of embryonic tumors to dormant levels and the growth of the...

...angiogenic factors were reduced. Six-month survival was observed in colon carcinoma mice only after CSF - 1 blockade, whereas controls were all dead at day 65. These results suggest that human embryonic and colon cancer cells up-regulate host CSF - 1 and MMP-2 expression.

Because the cancer cells used were CSF - 1 negative, CSF - 1 antisense targeted tumor stromal cell CSF - 1 production. CSF - 1 blockade could be a novel strategy in treatment of solid tumors.

...Identifiers-- CSF - 1 M-CSF; FACTOR-I; MATRIX METALLOPROTEINASES; CARCINOMA CELLS; SCID MICE; ANGIOGENESIS; MACROPHAGE; CANCER;

2/K/32 (Item 6 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci
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INVASION; MOUSE

09504350 Genuine Article#: 413UZ No. References: 49
Title: Colony-stimulating factor 1 promotes progression of mammary tumors to malignancy

Author(s): Lin EY; Nguyen AV; Russell RG; Pollard JW (REPRINT)

Corporate Source: Yeshiva Univ Albert Einstein Coll Med, Dept Dev & Mol
Biol,1300 Morris Pk Ave/Bronx//NY/10461 (REPRINT); Yeshiva Univ Albert
Einstein Coll Med, Dept Pathol, Bronx//NY/10461; Yeshiva Univ Albert
Einstein Coll Med, Ctr Study Reprod Biol & Womens Hlth, Dept Obstet
Gynecol & Womens Hlth, Bronx//NY/10461; Yeshiva Univ Albert Einstein
Coll Med, Dept Dev & Mol Biol, Bronx//NY/10461

Journal: JOURNAL OF EXPERIMENTAL MEDICINE, 2001, V193, N6 (MAR 19), P 727-739

ISSN: 0022-1007 Publication date: 20010319

Publisher: ROCKEFELLER UNIV PRESS, 1114 FIRST AVE, 4TH FL, NEW YORK, NY 10021 USA

Language: English Document Type: ARTICLE (ABSTRACT AVAILABLE)

Abstract: In human breast carcinomas, overexpression of the macrophage colony-stimulating factor (CSF - 1) and its receptor (CSF-1R) correlates with poor prognosis. To establish if there is a causal relationship between CSF - 1 and breast cancer progression, we crossed a transgenic mouse susceptible to mammary cancer with mice containing a recessive null mutation in the CSF - 1 gene (Csf1(op)) and followed tumor progression in wild-type and null mutant mice. The absence of CSF - 1 affects neither the incidence nor the growth of the primary tumors but delayed their development to invasive, metastatic carcinomas. Transgenic expression of CSF - 1 in the

mammary epithelium of both Csfl(op)/Csfl(op) and wild-type tumor-prone ...the growth of mammary tumors and the development to malignancy are separate processes and that CSF - 1 selectively promotes the latter process. CSF - 1 may promote metastatic potential by regulating the infiltration and function of tumor-associated macrophages as... ...site, CSF-1R expression was restricted to macrophages. Our data suggest that agents directed at CSF - 1 / CSF -1R activity could have important therapeutic effects. ...Identifiers--HEMATOPOIETIC GROWTH-FACTOR; FACTOR-I; BREAST-CANCER; GLAND DEVELOPMENT; EXPRESSION; METASTASIS; MICE; RECEPTOR; ANGIOGENESIS; MACROPHAGES 2/K/33 (Item 7 from file: 34) DIALOG(R) File 34: SciSearch(R) Cited Ref Sci (c) 2006 Inst for Sci Info. All rts. reserv. Genuine Article#: 413UZ No. References: 30 09504343 Title: Inflammatory cells and cancer: Think different! Author(s): Coussens LM; Werb Z (REPRINT) Corporate Source: Univ Calif San Francisco, Ctr Comprehens Canc, Dept Anat, HSW 1321, Box 0452,513 Parnassus Ave/San Francisco//CA/94143 (REPRINT); Univ Calif San Francisco, Ctr Comprehens Canc, Dept Anat, San Francisco//CA/94143; Univ Calif San Francisco, Ctr Comprehens Canc, Canc Res Inst, San Francisco//CA/94143; Univ Calif San Francisco, Ctr Comprehens Canc, Dept Pathol, San Francisco//CA/94143 Journal: JOURNAL OF EXPERIMENTAL MEDICINE, 2001, V193, N6 (MAR 19), P F23-F26 ISSN: 0022-1007 Publication date: 20010319 Publisher: ROCKEFELLER UNIV PRESS, 1114 FIRST AVE, 4TH FL, NEW YORK, NY 10021 USA Language: English Document Type: EDITORIAL MATERIAL ...Identifiers--HEMATOPOIETIC GROWTH-FACTOR; TUMOR-GROWTH; CARCINOGENESIS; ANGIOGENESIS; INFILTRATION; MACROPHAGES; MELANOMA; DISEASE; OVARIAN; CSF - 1 2/K/34 (Item 8 from file: 34) DIALOG(R) File 34: SciSearch(R) Cited Ref Sci (c) 2006 Inst for Sci Info. All rts. reserv. 09127012 Genuine Article#: 370EX No. References: 34 Title: Expression of acute and late-stage inflammatory antigens, c-fms, CSF-1, and human monocytic serine esterase 1, in tumor-associated macrophages of renal cell carcinomas Author(s): Hemmerlein B (REPRINT); Markus A; Wehner M; Kugler A; Zschunke F; Radzun HJ Corporate Source: UNIV GOTTINGEN, DEPT PATHOL, ROBERT KOCH STR 40/D-37075 GOTTINGEN//GERMANY/ (REPRINT) Journal: CANCER IMMUNOLOGY IMMUNOTHERAPY, 2000, V49, N9 (NOV), P485-492 ISSN: 0340-7004 Publication date: 20001100 Publisher: SPRINGER-VERLAG, 175 FIFTH AVE, NEW YORK, NY 10010

Title: Expression of acute and late-stage inflammatory antigens, c-fms, CSF - 1 , and human monocytic serine esterase 1, in tumor-associated

(ABSTRACT AVAILABLE)

Language: English Document Type: ARTICLE

macrophages of renal cell carcinomas

- ... Abstract: 25F9, MRP8, MRP14, and MRP8/14 antigens and by means of in situ hybridization of CSF 1, its c-fins-coded corresponding receptor, and human monocytic serine esterase-1 (HMSE-1) mRNA...
- ...macrophages of the late-stage inflammatory type potentially support the spread of renal cell cancer. CSF 1 derived from tumor cells and macrophages acts as a monocyte attractant and induces macrophage differentiation able to modulate the extracellular matrix rather than to exert cytotoxicity. CSF 1 derived from tumor cells and macrophages acts as a monocyte attractant and induces macrophage differentiation...
- ...Identifiers--BREAST-CARCINOMA; BINDING PROTEINS MRP8;
 NECROSIS-FACTOR-ALPHA; MONOCLONAL-ANTIBODY; DIFFERENTIATION ANTIGEN;
 MESSENGER-RNA; INFILTRATION; ANGIOGENESIS; PHENOTYPE

2/K/35 (Item 9 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci
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05073861 Genuine Article#: TM773 No. References: 27
Title: IMPAIRED TUMOR-GROWTH IN COLONY-STIMULATING-FACTOR-1
(CSF-1)-DEFICIENT, MACROPHAGE-DEFICIENT OP/OP MOUSE - EVIDENCE FOR A
ROLE OF CSF-1-DEPENDENT MACROPHAGES IN FORMATION OF TUMOR STROMA

Author(s): NOWICKI A; SZENAJCH J; OSTROWSKA G; WOJTOWICZ A; WOJTOWICZ K; KRUSZEWSKI AA; MARUSZYNSKI M; AUKERMAN SL; WIKTORJEDRZEJCZAK W Corporate Source: CENT CLIN HOSP, MIL SCH MED, DEPT IMMUNOL/PL-00909

Corporate Source: CENT CLIN HOSP, MIL SCH MED, DEPT IMMUNOL/PL-00909
WARSAW//POLAND/; CENT CLIN HOSP, MIL SCH MED, DEPT IMMUNOL/PL-00909
WARSAW//POLAND/; WARSAW ACAD MED & HOSP, INST BIOSTRUCT/WARSAW//POLAND/;
CHIRON CORP/EMERYVILLE//CA/94608

Journal: INTERNATIONAL JOURNAL OF CANCER, 1996, V65, N1 (JAN 3), P112-119 ISSN: 0020-7136

Language: ENGLISH Document Type: ARTICLE (Abstract Available)

- Title: IMPAIRED TUMOR-GROWTH IN COLONY-STIMULATING-FACTOR- 1 (CSF 1)-DEFICIENT, MACROPHAGE-DEFICIENT OP/OP MOUSE EVIDENCE FOR A ROLE OF CSF 1 -DEPENDENT MACROPHAGES IN FORMATION OF TUMOR STROMA
- ... Abstract: vascularization. The availability of the op/op mouse, which has no endogenous colony-stimulating factor 1 (CSF 1) and which possesses a profound macrophage deficiency, provides a new model to verify these notions...
- ...mice compared with normal littermates. Treatment of tumor-bearing op/op mice with human recombinant CSF 1 corrects this impairment. Histological analysis of tumors grown in op/op and normal mice revealed ...
- ...red-stained collagenous fibers and Gomori silver-stained reticular fibers. Our data suggest that the CSF 1 -dependent macrophage subpopulation missing in op/op mice plays a primary role in supporting tumor...
- ...Identifiers--LUNG-CARCINOMA CELLS; MICE; CSF 1; DIFFERENTIATION; POPULATIONS; EXPRESSION; MELANOMA; GENE
- Research Fronts: 94-2951 001 (TUMOR ANGIOGENESIS; INHIBITION OF VASCULAR ENDOTHELIAL GROWTH-FACTOR INDUCED CELL-GROWTH; STAGE-II BREAST-CANCER)
 94-6937...

2/K/36 (Item 10 from file: 34)

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DialogClassic Web(tm)
DIALOG(R) File 34: SciSearch(R) Cited Ref Sci
(c) 2006 Inst for Sci Info. All rts. reserv.
04369412
           Genuine Article#: RZ596
                                     No. References: 617
 Title: ACTIONS OF PLACENTAL AND FETAL ADRENAL-STEROID HORMONES IN PRIMATE
   PREGNANCY
Author(s): PEPE GJ; ALBRECHT ED
Corporate Source: UNIV MARYLAND, SCH MED, BRESSLER RES LABS, DEPT OBSTET &
    GYNECOL, 11-017, 655 W BALTIMORE ST/BALTIMORE//MD/21201; EASTERN VIRGINIA
    MED SCH, DEPT PHYSIOL/NORFOLK//VA/23501; UNIV MARYLAND, SCH MED, CTR
    STUDIES REPROD/BALTIMORE//MD/21201
Journal: ENDOCRINE REVIEWS, 1995, V16, N5 (OCT), P608-648
ISSN: 0163-769X
Language: ENGLISH
                    Document Type: REVIEW
... Research Fronts: TYPE-VII COLLAGEN; SQUAMOUS-CELL CARCINOMAS;
    PARANEOPLASTIC PEMPHIGUS)
  93-1319 001
                (MACROPHAGE-COLONY-STIMULATING FACTOR; CSF - 1 RECEPTOR;
   CYTOKINE EXPRESSION; DECIDUAL CELLS)
                (CALCIUM CHANNELS; OMEGA-CONOTOXIN SENSITIVE CA-2...
  93-2074 001
...INFANTS; ANTENATAL STEROIDS; FETAL DRUG-THERAPY; OSIRIS TRIAL)
  93-4494 001
                (VASCULAR ENDOTHELIAL GROWTH-FACTOR; ANGIOGENESIS
    INHIBITOR AGM-1470; PROLIFERATION INVITRO; INVIVO MODEL; POTENT
   ANGIOSTATIC ACTIVITY; SYSTEMIC EXPRESSION)
  93-5082 001...
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2/K/37 (Item 11 from file: 34) DIALOG(R) File 34:SciSearch(R) Cited Ref Sci (c) 2006 Inst for Sci Info. All rts. reserv.

Genuine Article#: RL318 No. References: 55 Title: THE EXPRESSION OF CYTOKINE ACTIVITY BY FRACTURE CALLUS Author(s): EINHORN TA; MAJESKA RJ; RUSH EB; LEVINE PM; HOROWITZ MC Corporate Source: MT SINAI MED CTR, BOX 1188,1 GUSTAVE L LEVY PL/NEW YORK//NY/10029; MT SINAI SCH MED, DEPT ORTHOPAED/NEW YORK//NY/00000; YALE UNIV, SCH MED, DEPT ORTHOPAED & REHABIL/NEW HAVEN//CT/06510 Journal: JOURNAL OF BONE AND MINERAL RESEARCH, 1995, V10, N8 (AUG), P 1272-1281 ISSN: 0884-0431

Language: ENGLISH Document Type: ARTICLE (Abstract Available)

- ... Abstract: group of proteins known to regulate hemopoietic and immune functions, are also involved in inflammation, angiogenesis, and bone and cartilage metabolism. Since all of these processes occur following bone injury, or...
- ... Research Fronts: INTERLEUKIN-4 RECEPTOR EXPRESSION; ESTROGEN REPLACEMENT; OSTEOCLAST INHIBITION)
 - (MACROPHAGE-COLONY-STIMULATING FACTOR; CSF 1 RECEPTOR; 93-1319 001 CYTOKINE EXPRESSION; DECIDUAL CELLS)

2/K/38 (Item 12 from file: 34) DIALOG(R) File 34: SciSearch(R) Cited Ref Sci (c) 2006 Inst for Sci Info. All rts. reserv.

04178454 Genuine Article#: RK745 No. References: 187 Title: THE ROLE OF GROWTH-FACTOR RECEPTORS IN CENTRAL-NERVOUS-SYSTEM DEVELOPMENT AND NEOPLASIA

Author(s): WEINER HL

Corporate Source: NYU, MED CTR, DEPT NEUROSURG, 550 1ST AVE/NEW YORK//NY/10016

Journal: NEUROSURGERY, 1995, V37, N2 (AUG), P179-193

ISSN: 0148-396X

Language: ENGLISH Document Type: REVIEW (Abstract Available)

- ...Abstract: central nervous system (CNS). Growth factor autocrine and paracrine stimulatory loops promote tumor proliferation and angiogenesis. A family of structurally related growth factor receptors, the receptor tyrosine kinases, are particularly relevant...
 ...Research Fronts: PROTEIN (GAP); SIGNALING COMPLEXES; NEUROFIBROMATOSIS
- ...Research Fronts: PROTEIN (GAP); SIGNALING COMPLEXES; NEUROFIBROMATOSIS
 TYPE-1 GENE)
- 93-1319 001 (MACROPHAGE-COLONY-STIMULATING FACTOR; CSF 1 RECEPTOR; CYTOKINE EXPRESSION; DECIDUAL CELLS)
- 93-2501 001 (PLATELET-DERIVED GROWTH-FACTOR; PDGF-ALPHA RECEPTOR...
- ...GROWTH-FACTOR; KDR RECEPTOR TYROSINE KINASES SHOW DISTINCT EXPRESSION PATTERNS; RAT GLIOMA MODEL OF TUMOR ANGIOGENESIS)
 - 93-8270 001 (EMBRYONIC RETINA; DIFFERENTIAL EXPRESSION; CELL FATE; RAT OPSIN GENE; TRANSGENIC MICE; MIGRATION...
- 2/K/39 (Item 13 from file: 34)
 DIALOG(R)File 34:SciSearch(R) Cited Ref Sci
 (c) 2006 Inst for Sci Info. All rts. reserv.
- 04044720 Genuine Article#: QK187 No. References: 460 Title: THE ROLE OF CYTOKINES IN GESTATION

Author(s): ROBERTSON SA; SEAMARK RF; GUILBERT LJ; WEGMANN TG
Corporate Source: UNIV ADELAIDE, DEPT OBSTET & GYNAECOL/ADELAIDE/SA
5001/AUSTRALIA/; UNIV ALBERTA, DEPT IMMUNOL/EDMONTON/AB/CANADA/
Journal: CRITICAL REVIEWS IN IMMUNOLOGY, 1994, V14, N3-4, P239-292
ISSN: 1040-8401

Language: ENGLISH Document Type: REVIEW (Abstract Available)

- ...Research Fronts: 6 UTILIZING HUMAN MURINE CHIMERIC MOLECULES; ERYTHROPOIETIN ACTION)
 - 93-1319 002 (MACROPHAGE-COLONY-STIMULATING FACTOR; CSF 1 RECEPTOR; CYTOKINE EXPRESSION; DECIDUAL CELLS)
 - 93-1458 002 (BRONCHOALVEOLAR LAVAGE IN ASTHMA; AIRWAY ALLERGIC INFLAMMATION...
- ...POSITIVE SELECTION; IMMATURE CD4+CD8+ THYMOCYTES; CD8 CELLS)
 93-4494 001 (VASCULAR ENDOTHELIAL GROWTH-FACTOR; ANGIOGENESIS
 INHIBITOR AGM-1470; PROLIFERATION INVITRO; INVIVO MODEL; POTENT
 ANGIOSTATIC ACTIVITY; SYSTEMIC EXPRESSION)
 93-5989 001...

2/K/40 (Item 14 from file: 34)

DIALOG(R) File 34:SciSearch(R) Cited Ref Sci (c) 2006 Inst for Sci Info. All rts. reserv.

- 03633082 Genuine Article#: PT392 No. References: 55
- Title: SIGNALING PROPERTIES OF FLT4, A PROTEOLYTICALLY PROCESSED RECEPTOR TYROSINE KINASE RELATED TO 2 VEGF RECEPTORS
- Author(s): PAJUSOLA K; APRELIKOVA O; PELICCI G; WEICH H; CLAESSONWELSH L; ALITALO K
- Corporate Source: UNIV HELSINKI, DEPT PATHOL, MOLEC CANC BIOL LAB, PL21/SF-00014 HELSINKI//FINLAND/; UNIV HELSINKI, DEPT PATHOL, MOLEC

CANC BIOL LAB/SF-00014 HELSINKI//FINLAND/; UNIV PERUGIA, MONTELUCE POLICLIN, IST CLIN MED/I-06100 PERUGIA//ITALY/; GESELL BIOTECHNOL FORSCH MBH, DEPT GENE EXPRESS/W-3300 BRAUNSCHWEIG//GERMANY/; LUDWIG INST CANC RES, UPPSALA BRANCH/S-75124 UPPSALA//SWEDEN/

Journal: ONCOGENE, 1994, V9, N12 (DEC), P3545-3555

ISSN: 0950-9232

Language: ENGLISH Document Type: ARTICLE (Abstract Available)

...Abstract: colony stimulating factor-1 receptor (CSF-1R), the FLT4 tyrosine kinase was specifically activated by CSF - 1. The activated FLT4 tyrosine kinase domain was found to interact with the Src homology 2 domains of the SHC and GRB2 adaptor proteins in vitro and with SHC in cells. CSF - 1 stimulation of the CSF-1R/FLT4 receptor chimera induced thymidine incorporation in serum-starved NIH3T3...

...Identifiers--PERMEABILITY FACTOR; HEPARIN-LIKE MOLECULES; PROTO-ONCOGENE; CELL-SURFACE; FACTOR GENE; SH2 DOMAIN; BINDING; EXPRESSION; ANGIOGENESIS

2/K/41 (Item 15 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci
(c) 2006 Inst for Sci Info. All rts. reserv.

02755072 Genuine Article#: MA652 No. References: 57

Title: NORMAL-DISTRIBUTION OF TUMOR-NECROSIS-FACTOR-ALPHA

MESSENGER-RIBONUCLEIC-ACID AND PROTEIN IN THE UTERI, PLACENTAS, AND

EMBRYOS OF OSTEOPETROTIC (OP/OP) MICE LACKING COLONY-STIMULATING

FACTOR-I

Author(s): HUNT JS; CHEN HL; HU XL; POLLARD JW

Corporate Source: UNIV KANSAS, MED CTR, DEPT ANAT & CELL BIOL, 39TH ST & RAINBOW BLVD/KANSAS CITY//KS/66160; UNIV KANSAS, MED CTR, DEPT PATHOL & ONCOL/KANSAS CITY//KS/66160; YESHIVA UNIV ALBERT EINSTEIN COLL MED, DEPT ANAT& CELL BIOL/BRONX//NY/10461; YESHIVA UNIV ALBERT EINSTEIN COLL MED, DEPT OBSTET & GYNECOL/BRONX//NY/10461

Journal: BIOLOGY OF REPRODUCTION, 1993, V49, N3 (SEP), P441-452 ISSN: 0006-3363

Language: ENGLISH Document Type: ARTICLE (Abstract Available)

- ...Abstract: whether transcription or translation of the TNF gene is regulated by uterine colony stimulating factor- 1 (CSF 1), preimplantation embryos, oviducts, uteri, and uteroplacental units were studied in various strains of mice. These included homozygous osteopetrotic (op/op) female mice, which completely lack CSF 1, and heterozygous (+/op) females, which have normal levels of CSF 1. TNF mRNA was identified in all samples except preimplantation embryos by use of Northern blot...
- ...epithelial cells, decidual cells, macrophage-like cells, placental trophoblast, and embryos. Despite an absence of CSF 1, TNF gene expression in the uteri, placentas, and embryos of op/op mothers did not...
- ...gene is transcribed and translated in an ordered sequence through mouse gestation, and that maternal CSF 1 is not essential to expression of this cytokine gene. Collectively, these findings are consistent with
- ...reproduction and development and with a potential compensatory function for this potent polypeptide factor in CSF 1 deficiency.
 ...Identifiers--FEMALE REPRODUCTIVE-TRACT; MACROPHAGE GROWTH-FACTOR; RAT

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TROPHOBLAST CELLS; FACTOR-I CSF - 1; GENE-EXPRESSION; INSITU
    HYBRIDIZATION; PREIMPLANTATION DEVELOPMENT; FACTOR RECEPTOR; MOUSE
    UTERUS; RNA
... Research Fronts: BINDING REQUIRES COEXPRESSION; CULTURED RAT EMBRYONIC
    CNS CELLS)
                (GUIDED TISSUE REGENERATION; TUMOR ANGIOGENESIS;
  91-3377 001
    PERIODONTAL REPAIR; SULFATED GLYCOSAMINOGLYCANS IN THE CHICK-EMBRYO
    CHORIOALLANTOIC MEMBRANE)
  91-5710 001 (INSITU HYBRIDIZATION...
             (Item 16 from file: 34)
DIALOG(R) File 34:SciSearch(R) Cited Ref Sci
(c) 2006 Inst for Sci Info. All rts. reserv.
           Genuine Article#: LU989
                                     No. References: 78
 Title: EXPRESSION AND REGULATION OF THE TUMOR-NECROSIS-FACTOR-ALPHA GENE IN
   THE FEMALE REPRODUCTIVE-TRACT
Author(s): HUNT JS
Corporate Source: UNIV KANSAS, MED CTR, DEPT ANAT & CELL BIOL/KANSAS
    CITY//KS/66103; UNIV KANSAS, MED CTR, DEPT PATHOL & LAB MED/KANSAS
    CITY//KS/66103
Journal: REPRODUCTION FERTILITY AND DEVELOPMENT, 1993, V5, N2, P141-153
ISSN: 1031-3613
Language: ENGLISH
                  Document Type: ARTICLE
                                              (Abstract Available)
... Abstract: evidence for regulation of this gene by other uterine
    cytokines such as colony stimulating factor- 1 ( CSF - 1 ). Although
    the functions of this pleiotrophic, multifunctional molecule are
    largely unknown, the findings to date...
... Research Fronts: OP/OP) MICE; BOVINE PLACENTAL CELLS; MOUSE UTERUS)
  91-3377 001
              (GUIDED TISSUE REGENERATION; TUMOR ANGIOGENESIS;
    PERIODONTAL REPAIR; SULFATED GLYCOSAMINOGLYCANS IN THE CHICK-EMBRYO
    CHORIOALLANTOIC MEMBRANE)
?
Set
        Items
                Description
Sl
                ANGIOGENESIS AND (CSF (N) 1) OR (M (N) CSF) AND (ANTI (N) -
           66
             ANGIOGENIC)
S2
                RD S1
                      (unique items)
           42
S3
           10
                S2 AND VEGF
S4
                      (unique items)
           10
                RD S3
S5
                (GENE (5N) SILENCING) AND (CSF (N) 1) OR (M (N) CSF)
        12121
?
S S2 AND S5
              42 S2
           12121 S5
               3 S2 AND S5
      S6
?
RD S6
               3 RD S6
                         (unique items)
      S7
T S7/MEDIUM, K/1-3
            (Item 1 from file: 35)
DIALOG(R) File 35: Dissertation Abs Online
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02007539 ORDER NO: AADAA-I3124980

M-CSF and GM-CSF induce human monocytes to express either pro- or anti-angiogenic factors

Author: Eubank, Timothy D.

Degree: Ph.D. Year: 2003

Corporate Source/Institution: The Ohio State University (0168) Source: VOLUME 65/03-B OF DISSERTATION ABSTRACTS INTERNATIONAL.

PAGE 1231. 188 PAGES

M - CSF and GM-CSF induce human monocytes to express either pro- or anti- angiogenic factors

The growth factor M - CSF is important in promoting monocyte survival. Since M - CSF (+/-) mice are protected against tumor metastases, we hypothesized that M - CSF induced monocytes to produce <italic>pro-angiogenic</italic> factors that facilitate this metastases. In part one of this study (Chapter 2), we demonstrated that recombinant human M - CSF stimulated freshly isolated normal human monocytes to produce and release the growth factor VEGF in...

...Importantly, VEGF released by these monocytes is biologically active, as cell-free supernatants from these $\,M$ - CSF -stimulated monocytes induced both tube formation and cell migration from human umbilical vein endothelial cells...

...of monocytes to macrophages and dendritic cells, can induce normal human monocytes to produce <italic> anti - angiogenic </italic> factors that may reduce tumor progression. GM-CSF and IL-3 both stimulate mRNA...

...ELISA. In contrast, rhVEGF was still detected when incubated with supernatants from non-stimulated- or M - CSF -stimulated monocytes. Neutralizing sVEGFR-1 by incubating specific anti-sVEGFR-1 IgG antibodies with supernatants...

...italic>, we utilized the Matrigel $^{\mathtt{M}}$ Plug Assay (Chapter 4) in mice and showed that M - CSF not only enhances endothelial cell invasion and blood vessel formation in the plugs relative to...

7/K/2 (Item 1 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)
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0015837604 BIOSIS NO.: 200600182999

Thalidomide derivative CC-4047 inhibits osteoclast formation by down regulation of PU.1

AUTHOR: Lentzsch Suzanne (Reprint); Anderson Gulsum; Kurihara Noriyoshi; Honjo Tadashi; Anderson Judith; Mapara Markus Y; Stirling David; Roodman David

AUTHOR ADDRESS: Univ Pittsburgh, Inst Canc, Div Hematol Oncol, Pittsburgh, PA USA**USA

JOURNAL: Blood 106 (11, Part 1): p187A NOV 16 2005 2005

CONFERENCE/MEETING: 47th Annual Meeting of the

American-Society-of-Hematology Atlanta, GA, USA December 10 -13, 2005; 20051210

SPONSOR: Amer Soc Hematol

ISSN: 0006-4971

DOCUMENT TYPE: Meeting; Meeting Abstract

RECORD TYPE: Abstract LANGUAGE: English

ABSTRACT: CC-4047 (Actimid) is an immunomodulatory analog of thalidomide that has stronger anti-myeloma and anti - angiogenic activity than thalidomide, but its effects on human osteoclast lineage are unknown. Early osteoclast progenitors...

...and thalidomide on human osteoclastogenesis, using in vitro receptor activator of NF kappa-B ligand/ M - CSF stimulated culture system of bone marrow cells. Three weeks of treatment of primary bone marrow...

7/K/3 (Item 1 from file: 34) DIALOG(R) File 34:SciSearch(R) Cited Ref Sci (c) 2006 Inst for Sci Info. All rts. reserv.

Genuine Article#: 594TE No. References: 50 Title: Colony-stimulating factor-1 antisense treatment suppresses growth of human tumor xenografts in mice

Author(s): Aharinejad S (REPRINT); Abraham D; Paulus P; Abri H; Hofmann M; Grossschmidt K; Schafer R; Stanley ER; Hofbauer R

Corporate Source: Univ Vienna, Dept Anat, Cardiovasc Res Lab, Waehringerstr 13/A-1090 Vienna//Austria/ (REPRINT); Univ Vienna, Dept Anat, Cardiovasc Res Lab, A-1090 Vienna//Austria/; Univ Vienna, Vienna Bioctr, Inst Med Biochem, Dept Mol Biol, A-1030 Vienna//Austria/; Univ Vienna, Dept Histol, A-1090 Vienna//Austria/; Yeshiva Univ Albert Einstein Coll Med, Dept Dev & Mol Biol, Bronx//NY/10461

Journal: CANCER RESEARCH, 2002, V62, N18 (SEP 15), P5317-5324

ISSN: 0008-5472 Publication date: 20020915

Publisher: AMER ASSOC CANCER RESEARCH, PO BOX 11806, BIRMINGHAM, AL 35202

Language: English Document Type: ARTICLE (ABSTRACT AVAILABLE)

- ... Abstract: adjacent stromal cells, primarily macrophages. The production of macrophages is regulated by colony-stimulating factor- 1 (CSF - 1). Tissue CSF - 1 expression increased significantly in embryonic and colon cancer xenografts. We, therefore, hypothesized that blocking CSF - 1 may suppress tumor growth by decelerating macrophage-mediated extracellular matrix breakdown. Cells expressing CSF-1 and mice xenografted with CSF-1 receptor (c-fms)- and CSF-1-negative malignant human embryonic or colon cancer cells were treated with mouse CSF - 1 antisense oligonucleotides. Two weeks of CSF - 1 antisense treatment selectively down-regulated CSF - 1 mRNA and protein tissue expression in tumor lysates. CSF - 1 blockade suppressed the growth of embryonic tumors to dormant levels and the growth of the...
- ...angiogenic factors were reduced. Six-month survival was observed in colon carcinoma mice only after CSF - 1 blockade, whereas controls were all dead at day 65. These results suggest that human embryonic and colon cancer cells up-regulate host CSF - 1 and MMP-2 expression. Because the cancer cells used were CSF - 1 negative, CSF - 1 antisense targeted tumor stromal cell CSF - 1 production. CSF - 1 blockade could be a novel strategy in treatment of solid tumors.
- ...Identifiers-- CSF 1 M CSF ; FACTOR-I; MATRIX METALLOPROTEINASES; CARCINOMA CELLS; SCID MICE; ANGIOGENESIS; MACROPHAGE; CANCER; INVASION; MOUSE

Set	Items	Description
S1	66	ANGIOGENESIS AND (CSF (N) 1) OR (M (N) CSF) AND (ANTI (N) -
	AN	GIOGENIC)
S2	42	RD S1 (unique items)
S3	10	S2 AND VEGF
S4	10	RD S3 (unique items)
S5	12121	(GENE (5N) SILENCING) AND (CSF (N) 1) OR (M (N) CSF)
S6	3	S2 AND S5
S7	3	RD S6 (unique items)
?		